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ABSTRACT

The manual for the development of general practice residency programs in dentistry is designed to be used in three regional workshops to train individuals representing institutions who wish to develop such programs. The first of three major sections in the manual reviews the historical background of general practice residency programs. In the second section the following six areas are identified as part of the organization and development of general practice residency programs: human and institutional support, financial considerations, development and retention of dental administrative and teaching staff, selection of residents, orientation and integration of residents into the institution, and methods for program evaluation. In the third section areas of instruction in general practice residency programs are explored, including a dental didactic program, clinical dentistry assignments, and hospital training and medical assignments. For each chapter an introduction, statement of the objectives, and worksheet are provided. Appended are a budget development model, a description of a service-oriented ambulatory care model, income and cost analysis figures, and examples of a resident manual and didactic activities. (Author/PHR)

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Special Issue:

MANUAL FOR DEVELOPMENT OF GENERAL PRACTICE RESIDENCY PROGRAMS IN DENTISTRY

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Special Issue:

MANUAL FOR DEVELOPMENT OF GENERAL PRACTICE RESIDENCY PROGRAMS IN DENTISTRY

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**Eastman Dental Center, in conjunction with
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all of Rochester, New York**

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iv Acknowledgments

vi Foreword

1 SECTION I—INTRODUCTION

3 SECTION II—ORGANIZATION AND DEVELOPMENT OF GENERAL PRACTICE RESIDENCY PROGRAMS

3 Chapter 1—Human and Institutional Support
10 Worksheet Number 1

11 Chapter 2—Financial Considerations
17 Worksheet Number 2

18 Chapter 3—Development and Retention of Dental Administrative and Teaching Staff
21 Worksheet Number 3

23 Chapter 4—Selection of Residents
29 Worksheet Number 4

30 Chapter 5—Orientation and Integration of Residents into the Institution
33 Worksheet Number 5

34 Chapter 6—Methods for Program Evaluation
36 Worksheet Number 6

45 SECTION III—AREAS OF INSTRUCTION IN GENERAL PRACTICE RESIDENCY PROGRAMS

47 Chapter 1—Dental Didactic Program
51 Worksheet Number 7

53 Chapter 2—Clinical Dentistry Assignments
59 Worksheet Number 8

61 Chapter 3—Hospital Training and Medical Assignments
67 Worksheet Number 9

69 Appendix A—Budget Development Model

75 Appendix B—Description of a Service-Oriented Ambulatory Care Model, May 1978

77 Appendix C—Income and Cost Analysis

81 Appendix D—Example of Resident Manual

82 Appendix E—Examples of Didactic Activities

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Special acknowledgment and appreciation is also given to the Project Officer for this contract, Dr. Jay A. Balzer, for his enthusiasm, participation, advice, and moderating influence.

No chapter, in fact hardly any paragraph, of this manual is the product of a single person. Rather, the manual was developed for both use in and as a result of input from three regional national workshops (Los Angeles, California; Augusta, Georgia; Rochester, New York) which were a part of the total project contract. The members of the Steering Committee, especially, contributed immeasurably of their time and enormous talents. Although the quantity of contributions by these members varied according to their available time, the quality of their efforts was uniformly superb—a result to be expected from a group who are truly the leaders in general practice residency training.

Primary responsibility for coordinating the writing of individual chapters fell on these shoulders:

Dr. Emmings—Human and Institutional Support, and Financial Considerations

Dr. Iranpour—Development and Retention of Dental Teaching Staff, and Hospital Training and Medical Assignments

Dr. Handelman—Selection of Residents, and Dental Didactic Program

Dr. Meyerowitz—Orientation and Integration of Residents into the Institution, and Clinical Dentistry Assignments

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Dr. Leverett wrote large sections of several chapters. Dr. Gladstein designed the worksheets. Final editing was the responsibility of Drs. Weig, Leverett, and Handelman.

Coordination of workshops and Steering Committee meetings, a job generally ranking high in frustration and low in appreciation, was competently handled by Dr. Weig.

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Finally, a very special acknowledgment is given to Ms. Luepke, whose patience, careful attention to detail, and tireless effort kept the project moving toward its eventual successful conclusion.

This manual was edited by Neal A. Bellanti.

Foreword

The Manual for the Development of General Practice Residency Programs in Dentistry was written as part of a contract awarded to the Eastman Dental Center, Rochester, New York, to conduct "Workshops to Assist the Development of Residency Programs in the General Practice of Dentistry" (HRA 231-77-0059). The workshops were developed to assist institutions initiating as well as improving or expanding existing programs.

The manual was designed to be used in three regional workshops to train individuals representing institutions wishing to develop general practice residency programs.

The workshops served to pretest the manual, and as a result of evaluations by workshop participants, it was further revised to ensure that its content was pertinent to the issues and understandable to the individuals who will be using it.

This manual is designed to help institutions initiate, improve, or expand general practice residency programs in dentistry. It is important to know that general practice residency programs are formally accredited by the Commission on Accreditation of Dental and Dental Auxiliary Educational Programs of the American Dental Association. In order to assist new programs the American Dental Association has a publication entitled, *Requirements and Guidelines for General Practice Residency Programs.* The manual has been developed to be consistent with and to enlarge upon that document. Copies of that document may be obtained from the American Dental Association.

The manual is divided into three major sections. The Introduction (Section I) reviews the historical background of general practice residency programs. Section II is entitled, "Organization and Development of General Practice Residency Programs." In it six areas are identified that should be considered before a new program is developed.

In Section III three areas of instruction in general practice residency programs are identified. One section deals specifically with inhospital training and medical assignments.

Each section begins with a brief introduction to explain the significance of the chapters. Chapters begin with a statement of objectives, so that the reader will know what should be learned from the chapter. The contents of the chapters are straightforward descriptions of the material required for starting or improving a general practice residency in dentistry, regardless of size, location, or history.

Most units have examples from existing programs to illustrate the information presented. These examples are differentiated from the text material for ease of identification.

The manual cannot be a substitute for personal contacts with ongoing programs in general dentistry. Visiting institutions with mature programs and meeting program directors and faculty will afford additional perspective, develop greater knowledge, and, most important, impart increased enthusiasm for graduate education in general dentistry.

At the end of each unit worksheets are provided. They are self-help tools, easy to use, and specially designed to help the reader implement the contents of each chapter relative to individual programs. Some are more appropriate to initiating general practice residency programs while others better fit already existing programs.

In addition, numbered reference material will be found in a bibliography at the end of each chapter.

Although the manual will provide much useful information, the material presented is intended only as a guide and must be adapted to the goals and requirements of individual programs.

Section I

Introduction

Since the 1960s an increasing proportion of dental school graduates have been interested in postgraduate training. Many are not attracted to the specialties but instead desire additional education in preparation for general practice. As a result there is an increasing demand for general dentistry programs with virtually no unfilled positions nationally.

In 1978, there were 265 general practice residency programs in United States hospitals, training over 800 residents annually. Dental schools graduate about 5,500 dentists each year, many of whom seek residency programs without success. Therefore, it is in the best interests of the profession to establish, enlarge, and improve programs nationally to provide advanced skills, knowledge, and educational opportunities in the general practice of dentistry for young graduates.

Accredited general practice residency programs are postdoctoral programs in hospitals that fulfill the Requirements for Approval of General Practice Residency Programs in Dentistry of the Commission on Accreditation of Dental and Dental Auxiliary Educational Programs of the American Dental Association (ADA). Although postgraduate educational programs in general dentistry other than in hospitals are being considered by the ADA, the requirement for accredited programs presently is that they be based mainly in hospitals.

Requirements for approval of general practice residency programs in dentistry were adopted by the House of Delegates of the ADA at the annual session in 1972. The previous regulations were enacted in 1952 for what were termed rotating and mixed internships. Recognizing the need for improvement, the staff of the Council on Dental Education (CDE) sought to develop strict standards to reflect the best situations and most productive programming.

For approval of a general practice residency in dentistry, a formal application must be submitted to the Commission on Accreditation of Dental and Dental Auxiliary Educational Programs of the ADA. This comprehensive application embraces all aspects of the general practice residency program and requires an explicit, complete, documented response. A completed application should be a true and precise reflection of the program. This manual includes all the elements of the application and has adopted, in several sections, a format which is similar to that of the application in order to assist the applicant.

Guidelines for General Practice Residency Programs in Dentistry is published by the Commission on Accreditation of Dental and Dental Auxiliary Educational Programs of the ADA to aid institutions wishing to establish new general practice residency programs in dentistry and to assist program directors of existing training programs in their continuing efforts to improve and upgrade their programs. These *Guidelines* also serve as standards for consultants to the Commission for the evaluation and accreditation of general practice residency programs.

Although this manual does not literally follow the *Guidelines*, references to the *Guidelines* are made throughout the manual and direct references to the *Requirements and Guidelines* are incorporated wherever appropriate in the manual sections. *Guidelines*' copies may be obtained from the Commission on Accreditation of Dental and Dental Auxiliary Educational Programs, attention: Advanced Dental Education, American Dental Association, 211 East Chicago Avenue, Chicago, Illinois 60611.

Section II

Organization and Development of General Practice Residency Programs

Chapter 1—Human and Institutional Support

Introduction

Support of institutions and key individuals must be obtained prior to the initiation or improvement of any dental residency training program. In this time of increasing costs and declining revenues, the acquisition of institutional and individual support is intimately connected with recruiting financial support. Therefore, this chapter and the one succeeding it are closely interrelated.

The ADA requires that a general practice residency program be hospital based. A general practice residency program, to be effective and grow, must operate in harmony with the parent institution. Therefore, it is imperative that the organization, administration, policies, goals, and, perhaps most important, the politics of the parent institution be clearly understood.

A significant amount of literature exists on organizational development in the health care industry. For a clearer understanding of the social organization of the hospital and its effect on the function and the organizational integration of dentistry within the hospital, the reader is referred to the following: Georgopoulos (1972),[1] Katz and Kahn (1966),[2] and Zybert (1977).[3]

In the planning stages, the success or failure of the development or improvement of a general practice residency program will depend on convincing a critical number of key people of the value and need for such a project. This chapter has been written to assist in the generation of support necessary for the successful development or improvement of a general practice residency program.

Objectives

In this chapter the reader will learn:

1. to identify those groups and individuals important to developing or improving a general practice residency program;
2. to recognize and understand the justifications which may most effectively convince each group of the need for such a program;
3. to establish a broad base of support among all concerned groups which will significantly facilitate the task of developing or improving a general practice residency program; and
4. to facilitate the creation of a new dental service within which a general practice residency can be developed by using Objectives 1-3.

Objective 4 is met if the reader will keep in mind that most of the principles discussed on the following pages may be applied to new dental services as well as residency programs and that the two are practically the same if their planning and development occurs at the same time.

Structure and Organization of Hospitals

There are a variety of ways in which hospitals are organized, but there are several principles common to most organizational structures.[4] It is essential for those working within a hospital and attempting to enlist support for new programs or increase support for existing programs to understand the interrelationships of its governing bodies. The *Requirements for Approval of General Practice Residency Programs in*

Dentistry requires orientation of the resident to hospital organization and administration.

Governing Board (Board of Trustees, etc.). The governing board is composed of community leaders from varied and usually nonmedical backgrounds. It usually has the ultimate legal responsibility for quality of care, acquisition and disposition of funds, setting policies, and representing the interests of the community. In some institutions, this board is knowledgeable and hardworking, and plays a major role in policy. Other boards serve as rubber stamps for decisions made elsewhere. Recent court cases emphasizing the board's legal responsibility in law suits against the hospital are having a major impact on the roles that boards play. If they play significant roles in decision making, obtain a list of board members and determine which members are active and which members will be supportive of dentistry. All contacts with the board should be cultivated to establish the broadest possible base of support for the dental department and its activities.

Medical/Dental Staff. Another group important in hospital organization is the attending medical staff. The name and composition of this group and its role will be defined in the bylaws of the hospital. Medical staff is often defined to include physicians and dentists, and the same set of bylaws governing the activities of attending staff should always apply to both dentists and physicians. The medical staff is comprised of professionals with the privileges of admitting patients to an institution. A small percentage of staff may account for the vast majority of the admissions, and they may be far more influential and active than others within the hospital. Members of the dental department might well know influential physician members of the medical staff. These individuals can be enlisted in developing support for an evolving dental program. One should be aware of potential conflicts of clinical interests among such overlapping services as otolaryngology, oral surgery, and plastic surgery. In different areas of the country, these conflicting problems vary considerably. Suffice it to say, there is often competition for patients based on both financial and philosophical reasons.

Medical Staff Organization. The governing board of the hospital delegates responsibility for major aspects of patient care to the medical staff. In every hospital there is a committee of the medical staff which assumes this responsibility and, as a result, has considerable power in decision making and establishing policy. This committee may be called the medical board or executive committee, but, whatever its title, it is composed of active attending medical staff members. Usually, this board will be comprised of the chiefs or chairpersons (sometimes staff) of the various departments.

The responsibilities of the board are fulfilled in most hospitals by organization into the following committees: executive, credentials, utilization review, medical records, infection, and joint conference. Establishment of other committees depends on need and hospital size. A successful general practice residency must have support and cooperation from the members of several committees. Therefore, it is essential that the chief of dentistry be made a member of, or be represented on, any governing body composed of members of the medical staff and be responsible for the decisions affecting the hospital and the department of dentistry. It is not unusual for the chief of dentistry or members of the department to know the chiefs of other departments through social or professional contacts. These contacts must be encouraged and developed.

The ways in which dentistry can benefit other departments and their patients must be made clear. Unfortunately, programs are frequently developed for personal rather than professional reasons. It is only after programs are in operation (and the initial ego of the developer has been satisfied) that real patient benefits are widely recognized. The above support must be developed early so that the worth of the department of dentistry can be emphasized.

Among the above committees of the medical staff organization, it is particularly important to be represented on the executive and credentials committees. The executive committee coordinates activities of all committees and takes action on their reports. The credentials committee should have the same general guidelines in reviewing individuals with medical or dental degrees. It would be the responsibility of the chief of the dental department to establish guidelines for staff membership, hospital privileges, and the responsibilities of the members of the department of dentistry. This committee affords an opportunity to know any new members who are joining the staff. Often these new members may be people who will support a department of dentistry.

Administration. The administrators of hospitals are often extremely important since they are the direct representatives of the governing board in day-to-day hospital operation. In some institutions the governing board plays a limited role if the medical staff is in disagreement or poorly organized. Then the chief administrator assumes primary responsibility for the institution. This power can sometimes be absolute enough to decide the fate of new programs. It is important to understand the relationship among the lay governing board, the medical board, and the administrator. In some hospitals the administrator will rely heavily upon the advice of a very few people. The chief of surgery or the chief of medicine may well be most influential in decisions made by the administrator. Once it has been determined who makes policy and how decisions are reached, one can then begin to develop a plan to influence that informal, policy-making intrastructure in beneficial ways. Most hospital administrators are thoroughly trained in well-established educational programs in hospital administration. One of their roles is to establish a balance of programs within the hospital that is consistent with the goals of the governing board. An administrator can often be instrumental in facilitating the development of a dental service, but usually the administrator will have to be educated as to the role dentistry can play within the hospital.

Accreditation. Each hospital in the United States which receives funds from Medicaid, Medicare, Blue Cross, etc., must be accredited by the Joint Commission on Accreditation of Hospitals. This accreditation is extremely important for hospitals because of these financial implications. Certain aspects of the requirements for accreditation can be important in influencing hospitals to react favorably to plans for general practice residency programs. Applicability is related to local conditions. Information can be obtained by writing: Joint Commission on Accreditation of Hospitals, 875 North Michigan Avenue, Chicago, Illinois 60611.

Dental services are often required (by state law) in institutions offering chronic or extended care. The inclusion of a dental service offers the benefits of in-service training programs for the faculty and staff of these hospitals. This is also consistent with the philosophy that extended care facilities should offer their patients comprehensive care.

Special Sources of Support. Within any hospital there are many special services or departments that interrelate with dentistry. Many hospitals offer a full range of outpatient services except for dental care. Usually there is a physician who directs outpatient services. The attitude of outpatient services directors regarding the role of dental care in comprehensive medical care can vary from enlightened to uninformed. The director who understands how dental health fits into comprehensive general health care will welcome the dental program and become an important ally in dealing with financial, space, and philosophical issues involving a new or expanding dental program.

A knowledgeable director should learn as much as possible about the existing medical care programs by asking various questions. Where are the patients from? What is their financial status? Do they face eligibility requirements? What is the age range of the patients? In general, how healthy are they? What are the most common medical problems encountered in this patient group? How many patients are seen a day? Is care provided by volunteers, house staff, or a salaried full-time staff? As one becomes more familiar with the existing medical programs, the areas into which a dental program may be most easily integrated will become evident. A simple questionnaire can be filled out by patients seeking outpatient medical or emergency services to help answer some of the previous questions.

If there is no member of the department of dentistry who is knowledgeable about the hospital and its programs, it is advantageous to employ a full-time or part-time dentist who is charged with developing a dental staff and programs. Once such a person has been added to the staff and is involved in the hospital, areas of potential development will become apparent.

Many major nonprofit general hospitals operate under chronic annual deficits. Usually it is the outpatient portion of the total operation that is associated with the largest deficit.[5] Chronic outpatient deficits are largely the result of traditional accounting practices that, while inappropriate, have been enforced by government regulations concerning cost allocation. Indirect costs are divided between inpatient and outpatient operations on the basis of square footage, personnel, or some other arbitrary formula which assumes that the two operations are separate and distinct. Since inpatient and outpatient operations tend to be intimately interrelated in many ways, this is usually a faulty assumption and results in faulty allocation. In a hospital dental operation, however, this relationship between inpatient and outpatient functions does not exist to as great a degree, but a relationship between service and teaching does exist. Administrators will usually ignore clinical arguments to change the accounting basis for indirect cost allocation.

This problem provides a major obstacle to the development of new teaching programs based primarily in outpatient departments. It is important that departments of dentistry understand allocation formulas that affect them in order to avoid unfair allotment of indirect costs. However, proposals for new, more equitable allocation formulas will be viewed with more sympathy if they take into consideration the general philosophy of the entire institution rather than only the interests of the department of dentistry. Costs from one unit cannot be absorbed without assigning them to another. A joint cost basis would allocate indirect cost on the basis of revenue from the different departments. This would provide much better management data because performance could be measured against realistic targets. This formula would presently not be acceptable for reimbursement purposes, but might be sufficiently beneficial to justify dual reporting.[6]

As a general rule, residency training programs are expensive and do not bring in income equal to their costs. Hospital administrators will usually invest new money if there is a reasonable expectation that it can be recovered on a short-term basis. It is essential, under present accounting systems, that all the income generated by dental services and dental programs be clearly identified with emphasis on income potential. It may be difficult to obtain information about revenue directly generated by the treatment of dental patients by other services (clinical laboratory, inpatient services, etc.), but it is important to the growth of the department and its programs (see Section II, Chapter 2).

Other departments to consider for potential support include family medicine, cardiac or cardiovascular surgery, radiation therapy, kidney dialysis, neurology, pediatrics, internal medicine, and anesthesiology. A brief description will be given as to how these departments may be of potential support. However, they can vary greatly from institution to institution.

Family medicine: These programs are relatively new, but directors of family medicine programs are particularly sensitive to the importance of dental care. Both family medicine and general practice residency programs emphasize ambulatory, primary care.

Cardiovascular surgery: It is well established that patients undergoing open heart surgery face increased risk in the presence of dental infection. Most cardiovascular surgery teams are aware of this and would appreciate working closely with dental departments so that their patients could be evaluated as to potentially complicating dental disease.

Radiation therapy: Patients undergoing radiation therapy for tumors of the head and neck make up another population that clearly benefits from dental consultation and management. Again, it has been clearly established that these patients should have dental evaluations and treatment to eliminate potential dental problems prior to the initiation of radiation.

Dialysis: Patients undergoing kidney dialysis are an important group to benefit from continuous dental management. These patients have complex medical problems, are often not able to get to private dental offices, and require a great deal of dental consultation.

Neurology: Patients seen by neurological services will include patients with cerebral palsy, convulsive disorders such as epilepsy, and mentally handicapped patients. These patients have difficulty being treated in private offices, and often a neurologist will be most cooperative in supporting the development of a service in the hospital which will care for this challenging type of patient.

Internal medicine: The attending medical staff members who care for patients with heart disease, diabetes, and a number of other systemic problems would welcome a dental department which would help treat patients with problems of mutual interest.

Anesthesiology: Some of the complications which arise during the administration of a general anesthetic involve the teeth and dental appliances. Prior dental consultation can result in the prevention of most of these problems.

In summary, dentistry can offer significant services to patients being treated in many departments of a hospital. Often the chiefs of departments are aware of these services, but the benefit of dental care as an important priority has not been adequately addressed; and care has not been readily available or accessible.

Support from Outside the Hospital

Patient Population. This group can often be reached through social, religious, political, or labor organizations. Their primary concerns revolve around the cost of dental care, but they also would be sensitive to data comparing the incidence of disease to the availability of care in their region. While the need for dental services will be universal, public perception of need will vary dramatically. Perception of need and utilization of dental services have been demonstrated to be correlated with income and educational levels of heads of the households. Identifying and emphasizing the need for high-quality, moderate-cost dental services will generate public pressure for the development of dental training programs.

Related to the incidence of disease are fluoridation of the public water supply and the availability of preventive dental programs within the community. Data can often be obtained from local public health agencies or dental schools. Availability of care is related to the dentist/population ratio and the distribution of dentists in the community. These data can usually be obtained from county or district dental societies, or from special location services provided by dental schools, health departments, health systems agencies, etc.[7] It is necessary to examine similar dental care programs in the region, if they exist, and to determine their strengths and weaknesses. Are they effectively caring for the needs of the community? Are they effectively dealing with patients presenting special problems (e.g., physiologically compromised, emotionally or physically handicapped, older adults, etc.)? The answers to these questions may be highly subjective, but patients' perceptions of the answers will determine their attitudes.

It is important to identify all populations in the community requiring special care. Some of these are represented by organizations such as the Association for the Help of Retarded Children, American Hemophilia Association, American Cystic Fibrosis Association, American Cancer Society, and American Heart Association. Children with cerebral palsy and patients on drug detoxification and maintenance programs require special dental care. Often these organizations have funds available to pay for transportation and care.

It should be established that some of these special needs can best be filled for the least cost by the proposed program. A highly motivated patient group can provide important leverage, since administrators of health institutions are often sensitive to direct and indirect pressure from such groups. A lay committee of the dental department consisting of several representatives from patient groups can be established to facilitate communications among the program, the institution, and the community.

Special Programs. Special efforts to balance the budget should be planned and documented, thereby showing to administrators a serious attempt to solve potential budgetary problems. These efforts might take the form of either monetary incentive programs for individuals who directly produce income or programs of dental care designed to meet special problems within the community. An example of special dental care programs would be a low-cost, high-quality prosthetics program for older adults who do not qualify for Medicaid and cannot afford customary fees. These programs, because they can be staffed by volunteers, can be expected to show a profit, thus providing front-end money for training programs. This can result in increased clinic utilization with a minimum increase in expense.

Continuing education programs can be expected to produce profits helping to defray costs of training programs. There is strong demand for these programs which can be produced relatively inexpensively.

In the final analysis, when upgrading or developing training programs, it is the financial balance sheet that is crucial in enlisting the support of institutional administrators. Thoughtfully and thoroughly prepared budgets based perhaps on extensive fiscal histories of successful, established programs will usually help achieve approval of proposed program improvement (see sample budget proposal, Appendix A). New programs also should consult established programs when developing their budgets, lending credibility to budgets for new programs. While it will be necessary to demonstrate the need for training and special programs on educational and service grounds, the crucial determination will be made on balanced budgets.

Dentists and Local Organizations Representing Dentists. The support of local dentists and dental organizations will help in beginning new programs and changing established programs. The importance of support from district and county dental societies varies by location. However, good communications can prevent organized opposition to proposed programs which may result from perceived threats to dentists' financial security.

Dentists are often well established in other groups within the community and can provide a power base from which key people can be influenced to lend their support to project development. Frequently, there are small groups of dentists who are deeply involved in local activities, are highly esteemed by their colleagues, and can strongly influence opinion and motivate action. These individuals can often be identified by their histories of holding offices in local and state organizations and study clubs and their liaisons or consulting positions with associated health care organizations. Their support is particularly important when establishing new dental services or programs.

Needs for prestige, independence, and financial security play decisive roles in the selection of careers in dentistry. The practicing dentist is frequently in need of diversion, an opportunity to share his skills, or intellectual stimulation to update his skills. Dentists enjoy the role of authority in matters of professional competence in relation to other dentists as well as to their patients and employees. Affiliations with institutions or programs and the willingness and ability to teach and practice in environments outside private offices, such as in hospitals, are often accompanied by increased professional stature and public recognition. Utilization of the hospital to treat special patients also offers dentists opportunities to broaden the scope of their professional services and augment income. Other inducements for volunteer, part-time faculty include free participation in continuing education courses offered by the department, opportunity for community service, and, in some cases, generation of significant income.

In summary, altruism, intellectual stimulation, ego satisfaction, and prestige are the primary factors which stimulate active, voluntary participation in training programs. Salaries are relatively unimportant to part-time staff. It is more important that they be given responsibility for portions of the overall effort so that they can be personally identified with progress in a given area. Along with the responsibility must be given appropriate authority and privilege.

Of interest to local dental organizations would be the ability of the proposed clinic or program to provide solutions to health care problems stemming either from unequal distribution of providers or from cost.

House Staff. Up to this point this document has focused on generating support for new programs, although many of the points made would also apply to expanding existing programs.

Consultation with past and present residents is essential if one is considering improvement or expansion of any existing residency programs. A program in flux generates frustration and anxiety unless all those involved are part of the process. Valuable input from this source will prevent costly errors of redundancy or omission. Residents should be made aware of the conditions, objectives, and needs—present and future—of the program and the department. Because of the intensity of their relationship to the program, they will often be the most complex group to deal with in the development of training programs. However, they also may provide the most constructive advice.

The house staff are often unsure of their roles. They are caught halfway between student dependency and the assumption of fully responsible status of private, professional practitioners. It is important that residents understand that they share with the teaching staff the responsibility for the program's success, and that teachers and students should not assume adversary positions in a postgraduate program as is sometimes the case in undergraduate dental training. Trainees must define their needs and expectations for the program, and these must be integrated with the needs of patients, the teaching staff, and the institution. However, it must be clear to the trainees that their needs are considered important.

It also is essential to the success of a program that trainees feel they contribute to the decision-making process. Training programs are costly, and residents generate most of the department income. The best incentive, next to money, for functioning in an optimally cost-effective manner is to feel some personal responsibility for the fiscal as well as the educational success of the program. Residents are, legally, full-fledged members of the dental profession. Although they have elected to continue their training and are still functioning as students, they should be involved with some responsibility for those decisions which affect their program. Inclusion as part of the team responsible for the success of the program will ensure optimum cooperation and participation. Although trainees should, for most purposes, be treated as partners in the operation, the faculty should be responsible for final decisions and judgments. Additional consultation and advice from local dentists who have been trained in other general practice residency programs would be of great value in this area during the planning and initial stages of program development.

Local Business and Related Organizations. Occasionally, local businesses will provide either financial or political support for the development of general practice residency programs. Those most likely to help are found among the enterprises which profit from products that promote better oral health or, paradoxically, from products which cause an increase in the incidence of disease (e.g., candy, gum, soft drink manufacturers, distributors, etc.). Front-end funds from these sources can provide leverage in budget discussions with institutional administrators and can influence decisions regarding the development of general practice residency programs.

Business people have a great deal of experience in acquiring and budgeting funds. This experience can be directly applied to clinic or program operations. Specifically, it is advisable to contact local dental suppliers and laboratories to work out possible arrangements which might offer discounts, equipment loans, or gifts of cash for research and education. Contacts in the business community will aid in identifying potential donors of development funds.

Two major benefits can accrue to businesses from their involvement in developing health care programs, increased profits and public recognition. Some businesses can expect to generate increased profits directly (e.g., dental laboratories and suppliers) or profit indirectly through improved public relations resulting from their contributions. Individuals enjoy being recognized as contributors to health care training and service programs. It must be made clear to potential donors of time and money that they will receive appropriate recognition. This might range from a written thank you to dedicating an entire dental clinic in the name of a very generous donor. Another important benefit concerns the deduction of gifts and expenses from taxable income.

Regional Health Planning Organizations. These agencies usually are primarily concerned about availability of care and about unnecessary duplication of services and their effects on costs. Since the need for dental care is generally recognized as a universal problem, permission to develop general practice residency programs is usually easily obtained. Consultation with the regional health systems agencies may provide valuable information concerning services offered by related programs and can, many times, aid as informational sources to other health care agencies and consumer segments of the population. In any event all program development will soon require the approval of these agencies and early contact with them will help assure cooperation.

REFERENCES

1. Georgopoulos, Basil S. *Organization Research on Health Institutions.* Ann Arbor, Mich.: Institute for Social Research, 1972.
2. Katz, Daniel and Robert L. Kahn. *The Social Psychology of Organizations.* New York: John Wiley and Sons, Inc., 1966.
3. Zybert, Edmund. Organizational Problems of the Hospital Dental Mini-System. *J. Hosp. Dent. Pract.*, XI(1, 2, 3, 4), 1977.
4. U.S. Department of Health, Education, and Welfare. Health Resources Administration. *Orientation to Hospital Administration.* Publication No. (HRA) 75-4009. Washington, DC: Government Printing Office, 1974.
5. Berman, R.A. and T.W. Moloney. Are Out Patient Departments Responsible for the Fiscal Crisis Facing Teaching Hospitals? *J. Ambulatory Care Management*, 1:37, January 1978.
6. Fluckiger, W.L. Personal communication, 1978.
7. Born, D.O. and K. Burton. Impact of a Computerized Placement Service on Practice Location of Recent Graduates. *J. Amer. Dent. Assoc.*, 97:175, August 1978.

WORKSHEET NUMBER 1

Human and Institutional Support

Directions: After studying this chapter, answer these questions. Your answers should help you determine the next steps necessary to help you obtain human and institutional support for your program.

1. List at least four types of groups that are important to the development of your own general practice residency program.

2. Describe briefly some of the issues that will be involved in obtaining support from groups *within* your hospital.

3. For your own local community, what groups *outside* the hospital do you believe would be *most supportive* in your efforts to develop or improve your general practice residency program.

   Which groups would be least supportive? ______

4. List at least three specific steps you should take to increase the human and institutional support necessary for starting or improving your general practice residency program.

Chapter 2—Financial Considerations

Introduction

Development of training programs requires money. An informed approach to budget planning and careful identification of potential sources of revenue and expense will help ensure the financial success of the program. Financial success is often the most important issue in obtaining the approval necessary to develop and continue training programs.

Objectives

After reading this chapter the reader will have learned:

1. to recognize the role of program objectives and priorities in the budgeting process so that cost effectiveness can be an important consideration in program and facility design and operation;
2. to identify costs and sources of income in order to demonstrate the probability of early and continued financial solvency of a developing general practice residency program and its related activities;
3. to develop information necessary to predict more accurately the potential of various departmental activities to generate income; and
4. to locate available sources of extradepartmental money and assistance and to acquire such support successfully.

After the decision has been made to develop a general practice residency program, the first and most critical step is to list the objectives and priorities for program development. Only with a clear set of objectives in mind can personnel, facilities, and equipment requirements be projected. It is most important that these objectives and requirements provide essential data for projection of income and costs. This process is called budget development and its importance cannot be overemphasized. Appendices to this manual include a monthly summary financial analysis and a detailed sample budget proposal to help identify some of the items for consideration. Space precludes discussion of more obscure line items but local procedures for budget development should be obtained from appropriate administrative personnel. An example is shown in Appendix A.

Income

Income is derived from several sources, and it is important to understand the factors which determine the availability of these sources. The largest single source of income is generated from services rendered to outpatients by residents. Unfortunately, postgraduate training programs do not usually emphasize the importance of this role of the trainee in the continued fiscal viability of the clinic and its programs. The following excerpt from *Requirements for Approval of General Practice Residency Programs in Dentistry* reflects the philosophy which has shaped this attitude.

> *Purpose.* A general practice residency program must be designed to provide adequate educational opportunities for the trainee rather than provide primarily a service to the hospital. *GPR Requirements: page 1, paragraph 5.*

It is likely that in the near future the emphasis will have to be altered, with greater stress on optimizing the trainees' capacity to produce income within the confines of educational requirements. This will probably be necessary because programs which cannot support themselves will not, in most cases, be allowed to exist.

The following is an example of typical costs related to the training of a single resident in a hospital program. These are divided into direct and indirect costs. Except for the salary of the dental assistant, the example does not reflect salary costs for staff, such as attendings, teachers, and other support staff involved in the resident's training.

Direct Costs

Resident's salary	$13,000
Assistant's salary	9,600
Fringe benefits at 20 percent	4,500
Consumable supplies	2,000
Laboratory costs	5,000
Total	$34,100
Indirect costs at 33 percent	11,000
	$45,100

Direct costs are controlled by the department which generates them. Indirect costs are those generated from services used by many departments and allocated to each user by a formula using some base which is realistic for the item in question (e.g., percentage of total floor space occupied by that user, direct salary or capital equipment used). Although the above example cites indirect costs of 33 percent, these costs might be 50 percent or more in most institutions.

Examples of indirect costs include depreciation of building and equipment, utilities, maintenance, and housekeeping. Costs of administration, social services, admissions, medical records, and operation of the pharmacy and laboratory services may also be passed down to each department using this formula. As a stopgap measure specific indirect charges should be discussed in detail during budget negotiations since they represent a significant financial burden, and automatic allocation formulas can sometimes be altered to fit the special requirements of the department. It would be more appropriate, however, to change the philosophy of cost allocation as it applies to the entire institution because individual alterations in the formula will weaken the institutional control and will serve both the institution and department badly.

The relationship of indirect costs to the fiscal solvency of hospital outpatient departments must be understood clearly. Instituting measures for increasing revenues and altering the present system of accountability for outpatient care are central to the financial health of departments and programs. A lucid review of the problems and of possible solutions is provided by Berman and Moloney (1978).[1] A summary of an ambulatory care model placing accountability directly in the hands of the clinical department is shown in Appendix B.

Using the *General Practice Residency Guidelines* statement that 60 percent of the year must be spent in direct delivery of services, an annual base of 1,200 hours per resident is to be spent delivering services. Experience has shown that using a moderate schedule of fees, residents will average approximately $35.00 of services per hour. Multiplying this revenue figure times the number of chair hours, a resident in this example would generate approximately $42,000 per year. The magnitude of the income problem can be appreciated when one realizes that the actual dollars collected will be a fraction of those generated. The exact percentage collected will vary according to local circumstances.

It becomes extremely important for the department of dentistry to identify all income that is generated by a resident or by the dental department. Three areas often not recognized are inpatient activity, ancillary hospital services, and emergency room care. Departments providing ancillary services for dental patients include radiology, pathology, hematology, and laboratory medicine. When tests are ordered from such departments, it is usually they, rather than the department of dentistry, that will receive the revenues from dental patients. Many institutions do not have accounting systems that can break out revenue and trace its source to specific departments. The chief of dentistry should determine what the accounting capability is within the hospital in order to make plans for the identification of all costs and revenues generated by his department. These data will help to quantify the contribution made by departmental activities to total institutional activities. The data, however, can only be used in a limited sense.

Increased volume of ancillary services brings in more income but also increases costs. The net increment may be very small and in some cases in which unit losses are being sustained will only increase the deficit. Compartmentalizing ancillary revenues by department is not sound management since each department contributes to the welfare of the others. A hospital functioning as an integrated group of departments generates benefits that would not accrue to a dental clinic alone. In many instances the activities of the dental department will represent a very small portion of the multimillion dollar business that the hospital generates. Nevertheless, it is extremely important for the chief of dentistry to have specific financial data, and it is essential that he urge the development of accounting systems needed to separate smaller cost centers. As the income generating capabilities of the department of dentistry increase, leverage in obtaining approval for new programs increases.

There are few incentives in postgraduate training which encourage optimum income performance by residents. Undergraduate students are not required to exert any efforts to this end and, since postgraduate training is often viewed as an extension of undergraduate education, this attitude is carried over. Individuals elect a postgraduate year because they want further training, and it is generally recognized that the primary objective for the year should be to give the students that training. Salary is not dependent upon the trainee's productivity. The trainee, in fact, usually resents pressure to produce income. However, it is critical that residents generate income at an optimal rate, and we can rationalize this in terms of the objectives of the training program. Trainees should be encouraged to improve efficiency at the chair by fully utilizing auxiliaries, by discarding unnecessary steps, and by concentrating on reducing procedure time without sacrificing quality.

By the middle of the residency year, the trainee should feel comfortable working multiple operatories, if available. These are extremely practical goals that can benefit patients, residents, and the clinic. The residents must feel a responsibility to help keep the institution fiscally strong. One way to do this is to involve the residents in the clinic operation where appropriate by seeking their input to all major aspects of the decision-making process. This does not mean that the program director has relinquished any authority in making final decisions. There is no evidence that this involvement adversely affects the types of student-teacher relationships that must exist in an effective training program. Residents should be kept informed regarding income and costs, and revenue goals can be established for each resident.

Finally, it has often been demonstrated that money is a universal incentive. Wage incentives are not usually offered to faculty or resident staff, which reflects the difficulty in designing and implementing such incentive programs. Informal reward systems such as offering trips to meetings or other outside activities are often used, but their effect has not been measured. Wage incentives could be offered to hygienists. Industry has been using this method for decades and in most cases with gratifying results. In fact, we might be advised to consult with industrial management professionals when designing training programs. In the very near future all training programs, particularly those considered nonessential, will either support themselves or be discontinued. If income generated by residents cannot be increased to meet costs, other programs that can produce revenue in excess of expenses must be instituted to underwrite the educational programs.

Other Possible Sources of Revenue

These methods are highly dependent on local conditions and are limited only by the imagination. A short list of these follows.

1. Extramural experience can be provided for undergraduate students. Dental schools must provide this experience to qualify for federal capitation funds. Agreements to provide extramural experience must be carefully calculated to benefit the department. The expense of training an undergraduate student in an extramural setting should not be underestimated and has to be weighed against the potential benefit of the experience.

An alternative to extramural experience was offered beginning in fiscal year 1978-79 and available through fiscal year 1980-81. Dental schools may elect to increase class size in order to qualify for federal capitation funds instead of providing the extramural training described above.

2. The department can cooperate in prepaid dental care programs for employees or students.

3. Volunteer faculty time can be requested to generate clinic income. During an assigned teaching period, faculty members may provide services to unscheduled patients for which the clinic collects a fee.

4. The staff can offer continuing education programs.

5. Public service programs may be instituted and staffed by volunteers.

Other alternatives appear at the end of this chapter.

Personnel

Salaries constitute the largest single item of expense in a clinic or program budget. Great care must be taken to determine the numbers and types of personnel essential to meet the objectives of service and education programs. Although not essential, a salaried full-time director is highly desirable for programs and clinics of any size, since constant adjustments in curriculum, procedures, and methods must be made while maintaining continuity of service and educational programs.

> It is desirable that program directors be appointed on a full-time basis. Where this is not possible, the director should, at minimum, devote 20 hours per week in the hospital environment exclusively to meeting day-to-day program responsibilities. Responsibilities of the program director include: (1) resident selection; (2) development and implementation of curriculum plan; (3) ongoing evaluation of program content, faculty teaching, and resident performance; (4) program administration; (5) planning and operation of facilities used in the educational program; (6) evaluation of residents' training and supervision in affiliated institutions; and (7) maintenance of records related to the educational program. *GPR Guidelines: page 9, paragraph 1.*

Often it is desirable to pay a small stipend to part-time faculty who play important roles in the activities of the department. Though practically negligible in terms of the entire budget, these stipends foster feelings of appreciation and greater responsibility to the program. Selective stipends can, however, foster resentment among the volunteer faculty. It is felt, however, that the overall effect helps to promote the success of the program.

Dental auxiliaries are usually eager to work for programs located in institutions because of the liberal fringe benefits and broader range of experiences available. They should be selected for their flexibility, teaching abilities, and experience, as well as their clinical skills. Hygienists generate income directly and should be active in staff and patient education. Also, they can coordinate income-generating continuing education programs for auxiliary personnel. Ideally, there should be one assistant available for each full-time resident equivalent (60-70 percent time in clinic x 1.4-1.3 residents = 1.0 full-time assistant equivalent). Since residents are sometimes on rotations outside the dental clinic, mathematical one-to-one ratios are not cost efficient.

If there are other activities which require the services of assistants (e.g., private faculty practice, special programs with independent budgeting) these should be paid from separate budgets with divisions of responsibility clearly defined. Although in practice it is desirable to retain some day-to-day flexibility in the duty assignments of dental assistants, it is absolutely imperative for the defense of budget proposals that all assistants be performing services related to those budgets from which they are paid. Assistants are most valuable at chairside and every effort must be made to minimize time spent performing other tasks such as ordering, filing, and answering telephones. Conversely, every effort must be made to coordinate dental assisting assignments in order to use assistants' productive time to the fullest.

The number of assistants necessary to optimize cost effectiveness is different for every clinic operation. Only trial and error will determine the optimal number. Annual resident turnover further complicates determining the optimum number of auxiliaries.

A receptionist-appointment secretary-file clerk is one of the key positions in any clinic operation. It is beneficial for this person to have had some dental auxiliary training. Billing and bookkeeping must be carried out carefully and systematically to avoid any leakage of income from errors or oversights. Depending on the size of the clinic, it is often desirable to employ a bookkeeper or accountant. They possess knowledge and skills often lacking in dentist/administrators and can help to manage and plan activities in a more cost-effective manner.

Because these tasks are critical to the clinic's operation and training programs, paying a premium wage to attract the best employees can prove economical. These persons help supply continuity and efficiency to an operation in which much momentum tends to be lost each year during the period of resident turnover.

In hiring personnel, as in designing facilities, needs and objectives must be considered carefully before any decisions can be made.

Construction or Renovation of Facilities

Facility design must be based on the needs and objectives of patients, staff, and programs. These must take into consideration community needs, educational programs, and departmental development. Overlapping needs must be identified and compromise solutions reached among various groups when designing the most functional facility for the lowest possible cost.

There are two approaches to operatory environments. An open, multiple-chair environment would reflect a more supervised, dental school atmosphere in which the new graduate might feel more comfortable while an individual suite environment would afford greater independence, productivity, and more practical experience. Ideally, both environments should be available to achieve multiple educational objectives. The inclusion of educational space is another example of designing for program objectives. Conference rooms, small individual study areas, and sleeping rooms with baths for on-call staff are necessary to facilitate various phases of the program. Much of this space will not be directly used to produce income, and, though necessary, must be minimized. Actual design of the clinic, size and arrangement of rooms, can best be done in consultation with architects, other institutions with functioning programs, engineers within the institution, and dental equipment manufacturers and suppliers. The number of operatories depends on the size of the program and the projected utilization.

New construction is more expensive than the renovation of existing facilities. Renovation of space within existing hospital outpatient facilities would be especially desirable, but needs and objectives must again be considered. The facility must be readily available to the population to be served. A hospital in the suburbs with little access to public transportation will have fewer patients who will seek out dental services than a hospital within the urban core. Therefore, in many situations, economy of construction must be given a lower priority than considerations of patients, personnel, and programs. Attention must be given to the specific location within an existing facility.

Physical proximity to other services whose professional interests overlap with dentistry (i.e., otolaryngology, plastic surgery) will facilitate interservice consultation, teaching, and referral.

Equipment

Facilities must be equipped to be consistent with the level of treatment presently being taught in dental schools. Also, the quantity and type of equipment must be sufficient to meet the needs of all groups involved in the program. These standards can best be determined by contacting dental educators and dental equipment suppliers. Equipping to these standards may be costly, but anything less could seriously compromise the quality of the educational program.

One of the educational goals for a general practice residency program is to develop efficiency in delivering dental services. Some of the requirements for improving efficiency include optimum use of auxiliaries, availability of multiple operatories, introduction of methods to reduce operator fatigue, and the equipment necessary to meet these requirements. Modern equipment also facilitates recruitment of teaching staff and patient acceptance.

Financial assistance in equipping new facilities can often be obtained from donors such as local businesses and grateful patients. The variation in cost of different items allows the donor a broad range of choices as to the size of the gift. This fact and the tangibility of a gift of equipment, as opposed to an endowment for unspecified purposes, appeals to many potential benefactors. Recently, dental equipment manufacturers have developed systems for leasing major items of equipment and leasing agreements preclude large initial cash investments. Dental suppliers often have used equipment in good condition or can be convinced to offer volume discounts on equipment and supplies. Often, it is in a manufacturer's best interests to loan equipment to clinics supporting training programs since it will be used by a number of potential buyers (e.g., trainees and faculty). Foundations and organizations can also be persuaded to donate equipment if their special interests can be served by such gifts. For example, a labor union might donate the equipment for a dental clinic if the facility were located near a large number of its members who required the services of the clinic.

Although new equipment and modern design have obvious appeal, there is a danger in over-designing a treatment area. The more complex the accessory features, the higher the purchase price and the more costly the equipment is to maintain. Excessive cabinetry in an operatory may adversely affect function and comfort, and leave no room for portable accessory equipment that might be needed for special procedures.

Determination of Fees

Fees for patients who pay directly must be determined on the basis of many factors. These include operating costs, clinic utilization rate, and local economic conditions. Theoretically, these fees must be set above a projected budgetary breakeven point and slightly below or level with local customary private practice fees. Fee structures at other local dental care facilities also should be taken into consideration to be competitive with prevailing local private practice fees, but this is complicated by higher hospital overhead. The fee structure will be difficult to project during the early stages of operation and should be reviewed at regular intervals. Continual changes in laboratory costs also necessitate regular review.

Fees paid for dental services by third parties vary with the plan. In general, government-sponsored programs pay a fixed fee which must be accepted as full payment, while privately-sponsored plans pay a usual-and-customary fee or according to a table of allowances, with the provider having the option to bill the patient additionally. It is necessary to communicate with all third parties with which you deal in order to understand as completely as possible the policies and standards governing the plans. Breadth of coverage, fee schedules, and procedures affecting application and payment all must be understood in order to maximize income. Anticipated level of enrollment of the patient population is also important since this will help to predict the impact of insurance plans on total clinic income.

Sources of Support

Private

1. Foundations—Most foundations have established goals and requests must relate to accomplishing those goals. Identify appropriate foundations, usually those with funds generated by the manufacturing and sale of products either beneficial or detrimental to oral health, and request application materials (National Sugar Foundation, Kellogg, Proctor and Gamble).

2. Endowments—Sources include grateful patients, personal friends, individuals active in dental health care, and community-spirited patrons. Cultivation of potential donors of endowment funds is an essential

activity in the development of financially sound programs, but the effort is very time consuming. It is best to enlist the aid of fund development offices or organizations.

Government

1. Federal
    a. Fees for service
        (1) Title XIX (Medicaid)
        (2) Title V (Crippled Children's Program)
    b. Grants and contracts are available for research in specific areas of biology, treatment methods, and delivery of dental care. These funds are available through the National Institute of Dental Research and occasionally other institutes and agencies of the Department of Health, Education, and Welfare. An example is the Health Resources Administration of the Public Health Service which awarded the contract to write this manual and also is administering funds under two separate grant programs for the specific purpose of developing general practice residency programs. Requests for grant and contract proposals are usually announced in the *Federal Register* or sent directly from the institutes or agencies to those who request them. Information can be obtained by writing directly to the institute or agency.

2. State—State governments contribute to and administer federally-mandated programs such as Medicaid and the Crippled Children's program. Interpretations vary from state to state. State health departments and state hospital systems perform functions and services which may have an effect on the development of a general practice residency program.

3. Local—County health departments usually have dental branches which perform some dental services in the community. County hospitals can provide a valuable source of experience for residents (i.e., gerodontics) which cannot be obtained elsewhere. County institutions are frequently affiliated with major medical centers, thereby simplifying development of cooperative programs. Some counties contract with health service organizations to provide dental services for their welfare clients. Contractual services can provide a major source of income for dental programs but all contracts must be carefully negotiated to benefit the department of dentistry as much as possible. Assistance in this respect from knowledgeable administrators can be very important.

Income and Cost Analysis

Establishment of program objectives should be followed by a projection of potential sources of income and an analysis of costs. An example of a study generating this information in a typical hospital (which we have called "Medical/Dental Center") contemplating a general practice residency program in dentistry appears in Appendix C.

REFERENCE

1. Berman, R.A. and T.W. Moloney. Are Out Patient Departments Responsible for the Fiscal Crisis Facing Teaching Hospitals? *J. Ambulatory Care Management*, 1:37, January 1978.

WORKSHEET NUMBER 2

Financial Considerations

Directions: After studying this chapter, answer these questions. Your answers should help you determine the next steps necessary in developing a sound financial plan for your general practice residency program.

1. List the major sources of costs and income that your general practice residency program will probably have:

	Major Costs		*Major Income*
1.		1.	
2.		2.	
3.		3.	
4.		4.	

2. Describe the probable costs for improving or creating your general practice residency program's physical facility, equipment, and personnel.

3. Describe the yearly probable income that your general practice residency program will be able to generate.

	Source of Income	*Amount*
1.		
2.		
3.		
4.		
5.		

4. Complete the "Anticipated Monthly" column in the "Activity and Financial Analysis" form in Appendix A for your general practice residency program. List here any problems you have in filling in this column.

5. List at least three likely sources of extradepartmental money that your general practice residency program should contact for possible fundings.

6. Describe the most difficult problems you will need to solve in keeping your general practice residency program solvent.

Chapter 3—Development and Retention of Dental Administrative and Teaching Staff

Introduction

Selection of the teaching staff represents a challenging task which extends far beyond the simple assessment of educational background and formal training. A knowledgeable staff interested in and committed to teaching is essential for the development and function of any program for general practice residents. While academic and formal qualifications are indicative of certain technical and theoretical ability, they do not necessarily represent the teaching capabilities or potential of the individual. Teaching staff members with a wealth of technical, theoretical, and research knowledge can be of no benefit to a program if they cannot impart information to the students.

The *Guidelines for General Practice Residency Programs* include specific information regarding administration and staffing. The *Guidelines* must be reviewed and implemented for development and function of the dental teaching staff.

> The Commission expects the hospital dental department to have a definite organization and a competent staff of dentists. The staff should include dentists qualified for the specialties taught in the program as well as general practitioners of dentistry. Dentist members of the medical staff will be expected to spend adequate time in the hospital to train the residents. *GPR Requirements: page 2, paragraph 2.*

Objectives

This chapter will provide information regarding:

1. the various categories of administrative and teaching staff;
2. the recruitment of an effective administrative and teaching staff; and
3. the motivation and retention of teaching staff.

Categories of Teaching Staff

In general, staff categories may be listed as follows: (1) program director, (2) salaried teaching staff, (3) voluntary (nonsalaried) teaching staff, (4) guest and visiting teaching staff, and (5) affiliated teaching staff or program.

In a teaching program one must never lose sight of the axiom that the program director is a teacher also. To that extent, the generalizations which will be made in this chapter regarding teaching staff apply to the program director as well. The additional administrative functions and responsibilities are specifically dealt with below.

Full-time teaching staff are always salaried, although many private institutions supplement salaries of full-time staff by providing intramural private practice. Policy regarding such arrangements should be agreed upon specifically and may vary from one institution to another.

> *Example:* Dr. Ross, a full-time member of the dental teaching staff, receives a base salary from the hospital. She is allowed to have an intramural private practice within the dental facilities. She may double her base salary from her private practice income. Of any amount generated beyond that (overage), 50 percent will be allocated to Dr. Ross, 35 percent to the dental education fund, and 15 percent to the hospital.

Such private practices by staff members should be used as much as possible for teaching purposes, sharing interesting and difficult procedures and involving the residents in diagnosis and treatment planning.

Part-time staff, especially those with greater responsibility, should be salaried according to the employment policies of the institution. Salaries should be negotiated relative to time spent, experience, and qualifications of the person involved.

Voluntary staff usually includes the hospital attending dental staff members who are almost always part-time. If the organizational guidelines described previously are used, attending staff can contribute effectively and significantly. In fact, some programs depend for their teaching components entirely on such voluntary staff. Their efforts should be coordinated by the administrator or other full-time staff. Where there is a large voluntary attending staff (more than 20 members), a small nucleus should be given the prime responsibility for teaching activities.

Guest speakers should be invited periodically to present lectures, seminars, and courses. Specific short-term courses may be given by individuals not otherwise participating in regular teaching assignments. Such persons may contribute voluntarily or be remunerated on a daily or per course basis.

Faculty members from a nearby dental school provide an excellent teaching resource when it can be arranged that they spend time in the hospital as visiting faculty and work directly with the residents. When opportunities exist, every effort should be made to recruit and strengthen the teaching staff by affiliation with the dental school.

Instead of, or in addition to, visiting teaching staff, the program itself may be affiliated with such institutions or agencies as dental schools, other hospitals, health centers, and freestanding dental educational facilities. Areas of teaching strength should be identified and residents assigned for specific learning or practical experience. Multi-institutional affiliation augments sharing of teaching resources and broadens the experience of the residents.

Recruitment

Although it is recognized that certain characteristics and methods of developing a teaching staff depend on the type and location of the institution, the size of the program and the financial reserves, the basic criteria for recruiting and maintaining an effective teaching staff are the same for all programs.

Before beginning the selection process, one must seriously consider several questions. What types of talent or expertise are most needed in the program? What areas are already covered adequately? How many of each of the various categories of staff would maximize teaching potential?

Program Director. The program director should be a dentist with advanced training and experience either in general practice or a dental specialty, should have had hospital experience, and should be familiar with hospital protocol and operations. Leadership capability is an important prerequisite. Modern academic, institutional, and economic complexities require an effective sense of direction and organization from the person responsible for the program.

Past performance is the best predictor of future performance. It is essential that references relating to administrative capabilities and teaching expertise be thoroughly verified. An administrator should be a capable teacher in order to share teaching responsibilities.

The primary role of the program director is to make certain that the general practice residency program is optimally implemented and the educational objectives of the training have been met. All the other roles and responsibilities of the program director relate to this basic and most important function.

> Responsibilities of the program director include: (1) resident selection; (2) development and implementation of curriculum plan; (3) ongoing evaluation of program content, faculty teaching, and resident performance; (4) program administration; (5) planning and operation of facilities used in the educational program; (6) evaluation of residents' training and supervision in affiliated institutions; and (7) maintenance of records related to the educational program. *GPR Guidelines: page 9, paragraph 1.*

For certain key positions, including program director and department heads, search committees may be required by the institution. Even if a search committee is not required it would be prudent to form such a committee to select a program director in order to reduce the possibility of an inappropriate appointment.

Teaching Staff. Teaching staff must include generalists and dental specialists. Ideally, generalists should have had at least one year of residency training. There are, however, generalists with vast experience, excellent teaching ability, and familiarity with hospital training who have not had residency training. They could be appointed to the staff and be given teaching responsibilities. Specialists should have had standard training as required by their respective specialty boards. Prior teaching and practice experience would also be valuable assets.

Teaching staff should include clinicians as well as those who could advance residents' knowledge in applied basic sciences (qualified biochemists, anatomists, etc.).

First-hand knowledge about an individual's administrative, clinical, and scientific background is probably the most common and satisfactory method of recruiting.

Other recruiting resources include information from local institutions; contact with institutions in other geographic areas; the newsletters of the AADS and AHA; American Educational Resource Association, Health Educators Group, Job Exchange; and experience and knowledge of local practitioners about a potential applicant.

All applicants for generalist positions should be asked to furnish the following information: (1) training or experience appropriate for the program beyond dental school graduation, (2) continuing education records and self assessment examinations, (3) documentation of teaching and scientific accomplishments, and (4) recommendations.

Specialists should provide the following information: (1) specialty training records and recommendations, (2) specialty board status, (3) documentation of teaching and scientific accomplishments, and (4) recommendations from previous programs.

Direct and informal contact with the candidate's previous dean or administrator can provide valuable information concerning the person's abilities and potentials.

Caliber and content of publications containing articles by the candidate are helpful in determining the extent and scientific level of achievement of candidates.

Interviews provide opportunities for observing candidates' methods of expression and personal disposition. And the interview will yield more information if several staff individuals interview the candidate separately and submit their assessments of the candidate.

As candidates are evaluated, it is important to consider how they may be expected to interact with existing members of the department. Most dental departments are relatively small so that interpersonal relations are of major importance.

New applicants should be interviewed and evaluated for their teaching potential (using the methods outlined above) before making any commitments concerning their teaching roles in a program. When possible, arrangements should be made for the potential staff member to spend some time informally in the program and participate in teaching prior to a formal appointment. This is particularly applicable when local practitioners apply for attending status on hospital staffs.

> *Example.* Dr. James Wall is interested in joining the dental staff of the City General Hospital and would like to participate in teaching of residents. The program director meets with Dr. Wall and discusses the departmental and teaching activities, suggests that Dr. Wall spend half-day a week for eight weeks, informally, in the department and participate in teaching of residents before a formal appointment is considered.
>
> (According to hospital regulations, any person participating in clinical teaching and supervision of the residents must have a formal staff apointment. When visitors or potential staff members are invited to interact with the residents at the clinical level, the Chief of service or another attending staff member must be responsible for the overall care of the patient. Another possible mechanism is to use the temporary privilege status allowed by the hospital.)
>
> Dr. Wall voluntarily spends eight half-day sessions in the department and presents two seminars. Residents and other members of the staff find him an ineffective teacher with poor academic and clinical background. The program director advises Dr. Wall that his addition to the staff will not contribute to the current program and that he should consider withdrawing his application.

Motivation and Retention of Teaching Staff

It is most important to integrate the teaching staff into the program and develop a sense of unified teaching responsibility among staff members. Following are some of the important factors that provide effective motivation.

- Each faculty member or attending staff member should have a specific teaching assignment schedule as well as the composite departmental teaching schedule.
- Whenever possible, qualified unit heads should be designated for the major specialty areas. These leaders will have specific teaching responsibilities relating their fields to general dentistry.
- Attending staff members should be responsible and accountable for patient care under their supervision. In addition to the academic and ethical considerations, attending members assume legal responsibility for the outcome of the care rendered to the patient by the resident under their supervision and instruction.
- General guidelines regarding the areas of teaching, program requirements, and lecture/seminar preparations should be developed and presented to each teaching staff or attending member.
- Periodic staff meetings should be held to develop goals and priorities, review program requirements, and evaluate teaching effectiveness. Attendance by residents will ensure input at the student level.
- Courses and seminars in group dynamics and teaching techniques should be provided for the teaching staff. Exposure to the principles of teaching not only expands the knowledge and ability of the staff member but also motivates the individual to improve teaching ability and take the task seriously.
- The teaching staff should also be given ample opportunity to participate in the development and conduct of the program and feel that their views are respected and fully considered.

The program director must use any possible vehicle and every opportunity to encourage and motivate the staff to perform effectively. Though the possibilities are too numerous to include in this manual, several general motivational principles follow.

The administrator should: (1) show interest and concern for the needs and problems of each staff member, (2) communicate directly and frequently with each staff member, (3) acknowledge and recognize the accomplishments of staff members, (4) assign specific tasks and responsibilities to staff members, and (5) develop continuing education courses of interest for the teaching (attending) staff.

The teaching staff should be evaluated periodically. The frequency and methodology of such an evaluation should be determined by the staff and the chief of the service. Residents, staff themselves, and the chief of the service (or program director) should participate in the evaluation procedure. The evaluation should aim at assisting individual staff members in their teaching effectiveness rather than penalizing the individuals. Handled properly, the evaluation process can be a very effective motivational tool.

WORKSHEET NUMBER 3

Dental Teaching Staff

Directions: After studying this chapter, answer these questions. Your answers should help you assess the teaching staff needs for your general practice residency program.

1. List the basic criteria you plan to use (or have used) in selecting, developing, and retaining your program's teaching staff.

2. Describe your plan for recruiting new teaching staff.

3. What methods have you used (or plan to use) for motivating your teaching staff?

4. Will (do) you use volunteer teaching staff?________ Why? ________

5. Complete the "Development of Dental Teaching Staff" form that follows. For each major teaching objective, note your program's strengths and weaknesses. Then list possible solutions that are based upon your answers to items 1-4 above and the contents of this chapter.

Development of Dental Teaching Staff

Your Teaching Staff Objectives	Areas of Strength in Your Program	Areas of Weakness in Your Program	Solutions

Chapter 4—Selection of Residents

Introduction

Certain predictors, by tradition and habit, are presumed to be valid measures for selecting the appropriate candidate for a program. These are dental school academic standing, recommendation letters, and personal interview impression. Processing these data is time-consuming and costly to the dental school and the postgraduate training program.

Objectives

After reading this chapter and filling in the worksheet, the reader should understand how:

1. to identify the goals of the selection process,
2. to compare the relative merits of criteria used to select residents (predictors) and the actual performances of the residents (evaluations),
3. to establish the steps in the selection process, and
4. to outline a selection process that could be utilized for individual institutions.

Goals of the Selection Process

What are the goals of the selection process? They are to select candidates who will have the best qualifications, be a credit to the program, and benefit most from the experience.

Will the selection process that is described in this chapter guarantee that these goals are met? Probably not.

Then why is this chapter relevant? Because it presents ways to make the selection process more efficient, make the process as fair as possible, and leads to an understanding of the limitations of the selection process.

The Selection Process

As noted in the Introduction, established general practice residency programs usually have large numbers of highly qualified applicants. The applicants have probably heard about the program from their dental school faculty and present and former program residents and about the program's reputation in the local dental community. If the program is accredited, the ADA listing of the program will also be of help to the potential applicant.

How can potential qualified applicants be notified of program openings? One mechanism is announcements or advertisements in professional journals. A second and effective approach is a letter to the deans of dental schools describing the program. This approach has been used by many programs in late spring. Toward the end of the last year of dental school a number of qualified students have not made definite plans, and dental schools can be most helpful in placing these graduates in programs.

With the above noted exception, the first step in the selection process is usually initiated by the applicants. They write for applications and request information about the program.

Return correspondence is routine and usually handled by the departmental secretary or the admissions office of the institution. It should include a letter of acknowledgment, instructions for applying, the application forms, and an information booklet. The program should be described in some detail. The booklet need not be elaborate, since the description of the program may need updating from year to year.

On reading the booklet the applicants should have a clear picture as to whether or not the program will meet their needs. If the applicant has read the booklet thoroughly, time can be used more productively during the personal interview.

If an applicant has not read the booklet, this gives us information about the applicant's motivation.

The instructions to the applicant should explain clearly what other credentials are needed, such as dental aptitude test results, dental school and undergraduate transcripts, National Board Examination scores, and letters of recommendation. Some institutions may require a photograph or request that the application be handwritten. If the completed application is not neat, the writing is barely legible, or simple instructions are not followed, something important has been learned about the applicant.

Application forms may be either standard hospital resident forms or specifically designed forms. There has been increasing interest in using a central application service in postgraduate programs in dentistry. Not only would this reduce the number of letters of recommendation, transcripts, and other supporting documents sent from dental schools but would also help in standardizing the data. A central application service may facilitate the development of a matching plan and a common selection date, but the two should not be confused. Until the number of positions is similar, it is unlikely that a matching plan will be instituted.

The kinds of information generally requested in an application form include (some state laws may preclude asking for certain personal data): (1) vital statistics (name, date of birth, marital status, etc.), (2) Dental Aptitude Test results, (3) undergraduate and dental school transcripts, (4) previous training, (5) postgraduate experience, (6) interest areas (clinical, academic, research), (7) long range plans, and (8) reasons for applying to a particular program.

Some examples of basic correspondence are initial letter of acknowledgment of interest (Example A), invitation for interview (Example B), and final letter of acceptance (Example C) or rejection and/or alternate list notification (Example D).

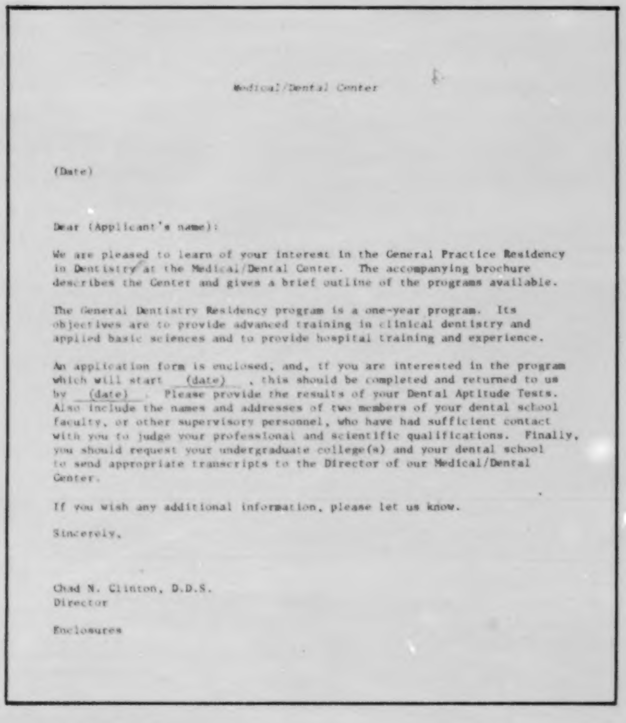
Although most of the initial communication with the applicant may be written, the telephone may be more efficient in inviting candidates for interviews. However, this may be extremely difficult if the student is in a large dental school. In such cases, the administrative assistant to the dental school dean is usually well qualified to help and realizes the importance of the call to the applicant as well as to the school.

Relative Merits of Criteria Used to Select Residents

The following points should be considered in screening applicants.

Class Rank or Other Academic Standards. Many fine candidates may be overlooked if they are not in the top quarter or third of their classes.

Although there are numerous studies indicating that class rank or other academic standards are the most positive predictors of dental school and postgraduate performances, these have to be interpreted with caution. At the time of evaluating the transcript of an applicant to a general practice residency program, the grades are weighted toward the basic sciences and not clinical performance. We, therefore, have limited indications of how residents will relate to patients and



Medical/Dental Center

(Date)

Dear (Applicant's name):

We are pleased to learn of your interest in the General Practice Residency in Dentistry at the Medical/Dental Center. The accompanying brochure describes the Center and gives a brief outline of the programs available.

The General Dentistry Residency program is a one-year program. Its objectives are to provide advanced training in clinical dentistry and applied basic sciences and to provide hospital training and experience.

An application form is enclosed, and, if you are interested in the program which will start __(date)__, this should be completed and returned to us by __(date)__. Please provide the results of your Dental Aptitude Tests. Also include the names and addresses of two members of your dental school faculty, or other supervisory personnel, who have had sufficient contact with you to judge your professional and scientific qualifications. Finally, you should request your undergraduate college(s) and your dental school to send appropriate transcripts to the Director of our Medical/Dental Center.

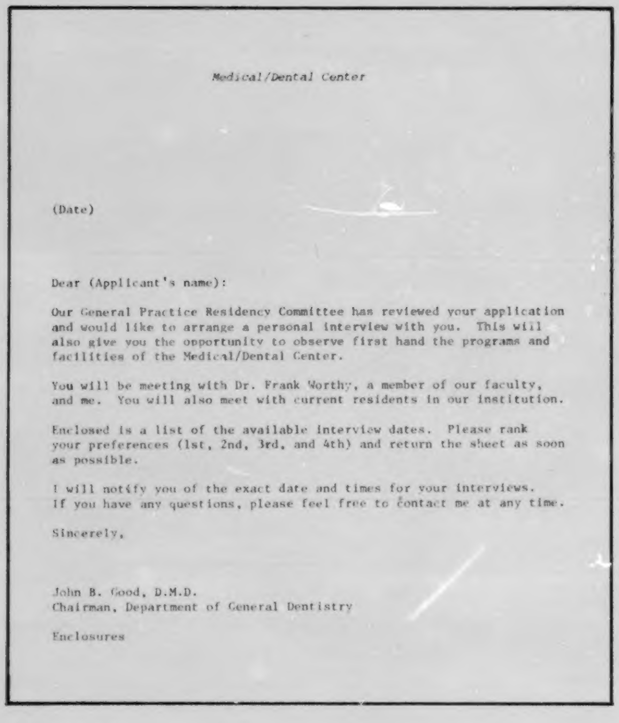
If you wish any additional information, please let us know.

Sincerely,

Chad N. Clinton, D.D.S.
Director

Enclosures

Example A



Medical/Dental Center

(Date)

Dear (Applicant's name):

Our General Practice Residency Committee has reviewed your application and would like to arrange a personal interview with you. This will also give you the opportunity to observe first hand the programs and facilities of the Medical/Dental Center.

You will be meeting with Dr. Frank Worthy, a member of our faculty, and me. You will also meet with current residents in our institution.

Enclosed is a list of the available interview dates. Please rank your preferences (1st, 2nd, 3rd, and 4th) and return the sheet as soon as possible.

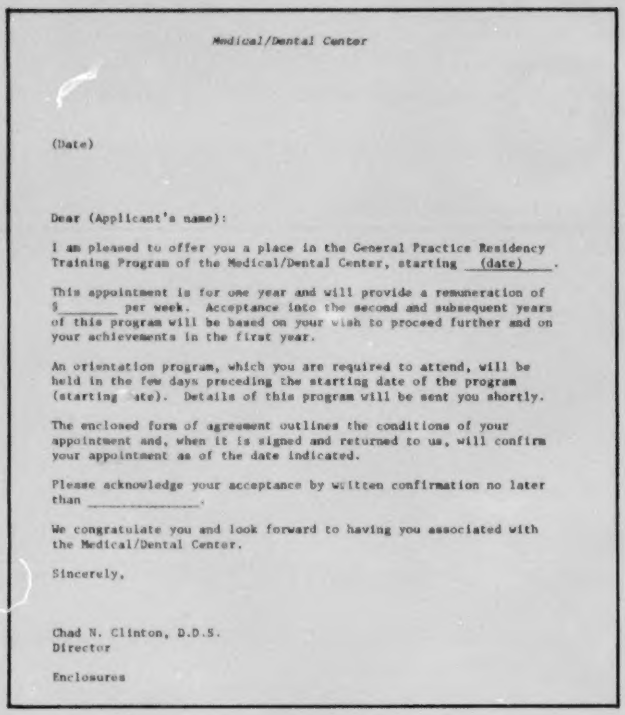
I will notify you of the exact date and times for your interviews. If you have any questions, please feel free to contact me at any time.

Sincerely,

John B. Good, D.M.D.
Chairman, Department of General Dentistry

Enclosures

Example B



Medical/Dental Center

(Date)

Dear (Applicant's name):

I am pleased to offer you a place in the General Practice Residency Training Program of the Medical/Dental Center, starting __(date)__.

This appointment is for one year and will provide a remuneration of $________ per week. Acceptance into the second and subsequent years of this program will be based on your wish to proceed further and on your achievements in the first year.

An orientation program, which you are required to attend, will be held in the few days preceding the starting date of the program (starting date). Details of this program will be sent you shortly.

The enclosed form of agreement outlines the conditions of your appointment and, when it is signed and returned to us, will confirm your appointment as of the date indicated.

Please acknowledge your acceptance by written confirmation no later than ______________.

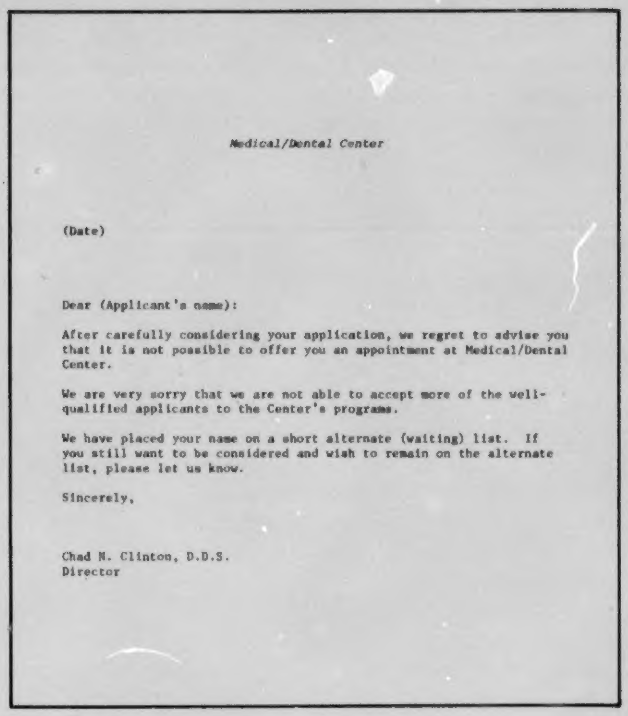
We congratulate you and look forward to having you associated with the Medical/Dental Center.

Sincerely,

Chad N. Clinton, D.D.S.
Director

Enclosures

Example C



Medical/Dental Center

(Date)

Dear (Applicant's name):

After carefully considering your application, we regret to advise you that it is not possible to offer you an appointment at Medical/Dental Center.

We are very sorry that we are not able to accept more of the well-qualified applicants to the Center's programs.

We have placed your name on a short alternate (waiting) list. If you still want to be considered and wish to remain on the alternate list, please let us know.

Sincerely,

Chad N. Clinton, D.D.S.
Director

Example D

the teaching staff. Do not write off candidates if they are not in the top third of their classes. Consider these factors.

1. Did the applicant have to work during school to support him/her self and/or family?

2. Has the applicant demonstrated other qualities that cannot be measured by academic achievement: e.g., editor of the school journal, class officer, student teaching, faculty, student committees or research activity?

3. How much difference is there between grade point averages in each quarter of the class? In some schools the difference may be very little.

Letters of Recommendation. Letters of recommendation should be considered according to the rank of the responding faculty member or committee and by the relationship of the applicant to the responder.

High ranking dental school faculty member (dean, head of department, etc.): These may be relatively unbiased, but the faculty member may not know the student well and base his or her opinion heavily on the student's transcript or the opinions of other faculty members. The accomplishments of outstanding students will be clearly stated. The average candidate will usually be described with stock phrases such as: "relates well to patients," "will be an asset to the profession," "is highly motivated," etc.

Lower ranking dental school faculty members: If the respondent is an individual who works directly with the student and has not been selected by the applicant, the respondent is likely to give you an objective appraisal.

Respondent selected by the student: In general, they will rank the applicant as very good to excellent. There is often marked contrast between the glowing reports of this respondent and the more reserved letter of other dental school faculty members.

Faculty members from a basic science department or other faculty member for whom the applicant worked on special projects: This letter can give good information in regard to the candidate's special skills or interests. However, achievement on a special laboratory project may not be related to clinical or patient management skills.

Recommendations of a faculty committee: These can be very difficult to assess. At best, they can be the deciding factor in the selection process. At worst, they can be misleading. It is difficult for a school to acknowledge that any of its graduates is less than adequate. Most committees rank a majority of students as above average—clearly a conflict of terms.

Superior students having many accomplishments will have letters of recommendations consistent with their achievements. The problem is attempting to select among candidates with good academic credentials and good letters of recommendation. If there is a question, a phone call can be most helpful. A responder who is reticent in a letter may be completely frank in a telephone conversation.

Most letters of recommendation are written by individuals whom we do not know personally. We do not know their ability to judge or how objective their comments may be. A letter of recommendation from a respondent whom we know personally gives us the best opportunity to evaluate the letter of recommendation.

The Selection Process for Interviews. Although it may be the least reliable criterion for the selection of a resident, most programs insist on an interview.

At its best:

- It will reinforce those positive qualities that are present in the written application.
- It may explain extenuating circumstances or erroneous information in the supporting documents of the application.
- It may elicit pertinent positive or negative information not apparent from the written application.
- It may expose those extreme personality factors or personal habits that may be in conflict with the best interests of individual dental services.

At its worst:

- The solid citizen may not be that impressive.
- Verbal, outgoing applicants may say those things they know interviewers like to hear. One can reasonably measure knowledge and technical skills but might have difficulty assessing factors related to feelings, emotions, and moral values.

Although it has been suggested that an interview by a psychiatrist or psychologist may have merit, there is general agreement that a brief interview or psychologic test will be of limited value in differentiating among good candidates.

Before a candidate is selected for an interview, most institutions request that the application be complete. A check list can insure that all information has been received. It can be attached to the application folder or filed separately. This check list can also be used until the final status of the candidate is determined.

Check List Example

Name ____

(1) Transcripts ☐
(2) Personal Statement ☐
(3) Dean's Letter ☐
(4) Letters of Recommendation ☐
(5) Application Evaluation ☐
(6) Interview ☐
(7) Interview Evaluation ☐
(8) OVERALL EVALUATION ☐

If an application is incomplete, it is considerate to notify the applicant. The letter of recommendation that was requested may not have been written by the respondent or mail may have inadvertently been misplaced.

How should you select candidates for interviews? In a small program this can be done by one individual, the director. In a larger program, this may be done by a committee. There are two main advantages in including a number of individuals in the selection process. First, there may be less bias in the selection process. Second, if some of the staff participate in the process there is less likelihood of criticism if the candidate falls short of expectations.

Since there are many candidates for a few positions, the total number of candidates will have to be limited. Although criteria for choosing candidates are mostly subjective, there are a few guidelines that can be helpful in selecting those to interview.

1. Estimate the total number of candidates that can be interviewed. Remember, it may cost an applicant a good deal of money to come for an interview. However, difficulty in establishing an interview date with an applicant or the inability to come for an interview when distance is not a major consideration is effective in weeding out the less motivated applicant.

2. Rank or rate the candidates. An effective method for this purpose is alternation ranking.

    a. First eliminate those who cannot be ranked because the information is incomplete or so different that they cannot be considered. (Some programs will not consider individuals who are not graduates of North American dental schools or who are not recent graduates.)

b. Review the applications and select the one person on the list who is thought to be the best. Draw a line through that name and write it at the top of a page (titled "Ranking Candidates for Interviews") with the designation "Highest."

c. Review the remaining applications and select one person who is considered not as qualified as the others. [illegible] that name and write it in on the bottom of the page and mark it "Lowest."

d. Continue this ranking procedure (selecting the next highest, then the next lowest) until all names have been considered.

e. Select the number of candidates you wish to interview, starting at the top of the list.

At the time of the interview, applicants should be questioned concerning their perceptions of their strengths and weaknesses and their interest in the program. Prospective residents should have a clear picture of the content of the program and their responsibilities to it. There is an advantage to having all applicants meet with the present residents in the program. They will level with each other as peers. There is danger of exposing not only the program's attributes but also its shortcomings, and some may feel challenged and uncomfortable. Better to feel challenged and uncomfortable for one day than for an entire year. Remember, the interview not only is an opportunity for the institution to assess the applicant but also for the applicant to assess the institution.

What is a reasonable procedure for establishing the time of the interview? For a small program and a limited number of applicants, interviews can be scheduled randomly in the fall at the convenience of the program director. This may be more convenient for the applicant, but it is not an effective use of administrative time. Scheduling interviews for specific days or blocks of time is more efficient, especially if more than one individual will be interviewing the candidates.

Who should be doing the interviewing? Certainly the program director and at least some of the faculty members.

Should the current residents participate in the interviewing or, for that matter, in the selection process? It sounds democratic and reasonable, but the response of residents to applicants is very subjective and frequently inaccurate. Finally, they will not be around to live with their mistakes. However, they can provide a reasonable and reliable evaluation of students whom they have known previously from school.

Interviewing Techniques. Skills in this area are developed with training and time. Some individuals place a great deal of confidence in their own common sense and experience and feel that formal training has little or no value. It is not the purpose of this manual to review interview skills, but to suggest that if the reader believes this is an area which needs further development, consider taking a course at a local college or university.

What other activities are desirable on the day of interview? Consider arranging a tour of the institution, conducted by the residents. This will have the added advantage of the applicant's meeting the residents on an informal basis. This may even have more merit than a formal interview session between residents and the applicants.

What is a reasonable length of time to schedule an interview? There should be a minimum of one-half hour and a maximum of an hour for each interview. Most programs will set aside specific days for interviewing. This is more efficient and permits more uniformity of interview impressions. More important is the quality of the time spent. Eliminate, if at all possible, distractions such as the telephone. You will lose your sense of continuity, and the applicant may interpret your inattention as rudeness. Remember, the interview day is a very important day for applicants. Be considerate of their feelings.

Two last thoughts before leaving the subject—more will be learned by asking open-ended questions such as, "What have you enjoyed most (or least) about your dental school training?" and *listening actively*, as opposed to dominating the interview by talking.

Following is an example of an outline that could be used to record the interviewer's perceptions.

One final caution: The interviewer's perceptions should be recorded immediately or impressions may become vague and distant.

Selection of the Resident

The application has been completed and the applicant has been interviewed. A process similar to alternate ranking can be followed for the final selection process. If more than one person is part of the decision-making process, they can rank candidates independently. There is no problem when perceptions are similar. If there are differences, they should be discussed openly. As long as all senior or attending staff involved in the selection process feel that their opinions have been fully considered, they should have little difficulty accepting a final decision by the chief of service or department chairman which varies with theirs.

Although the purpose of the selection process is to identify candidates who have the best qualifications, who will be a credit to the program and who will benefit from the experience, the reader should realize that the process is still mostly subjective and has limitations.

GENERAL PRACTICE RESIDENCY PROGRAM

MEDICAL/DENTAL CENTER

Applicant ______________________________ Date ______________________

INTERVIEW IMPRESSION

Not recommended (poor) ☐
Recommended with reservation (fair) ☐
Recommended (good) ☐
Highly recommended (excellent) ☐

1. Personal Demeanor ______________________________
2. General Background ______________________________
3. Immediate and Long-Range Goals ______________________________
4. Research and Teaching Background/Interest ______________________________
5. Additional ______________________________

____
Interviewer

WORKSHEET NUMBER 4

Selection of Residents

Directions: After studying this chapter, answer these questions. Your answers should help you determine the procedures you wish to use in your general practice residency program for selecting residents.

1. List the goals you have for your resident selection process.

2. Which criteria (predictors) do you (will you) use in selecting your residents?

3. What steps do you (will you) use in your resident selection process?
   1.
   2.
   3.
   4.
   5.

4. Do (will) you use interviews in selecting residents? If you do, describe how you try to avoid their limitations.

Chapter 5—Orientation and Integration of Residents into the Institution

Introduction

Upon arrival at an institution, residents are expected, in a relatively brief period of time, to be able to function effectively while maximizing the educational opportunities available. To do so, residents are expected to assimilate a large body of information so that they can understand and use the resources available in the institution as well as in the community. An orientation program is the device traditionally used to integrate residents into institutions. It is an important part of any program. A poorly conducted orientation program could produce negative feelings and frustrations which might be difficult to alter. A well-run orientation program, which quickly and efficiently introduces residents to their new environment, will serve to forge good attitudes from the beginning.

Objectives

After reading this chapter and filling in the worksheet, the reader should have learned how:

1. to help the residents understand the objectives and philosophy of the general practice residency program;
2. to outline the available learning experiences;
3. to structure an orientation program to provide the residents with information about the institution and the clinical situation and help them use this information to function efficiently in these settings; and
4. to introduce the residents to the types of social situations that may confront them in their interaction with personnel in the institution.

Orientation Overview

A decision should be made as to when the orientation program will be held, how long it will be, and who will participate in it. Most orientation programs will obviously be held immediately at the start of the new academic year. If your program is a one-year program, it is worthwhile to consider holding the orientation while the residents of the previous year are still available. This is useful for a number of reasons. The new residents get the perspectives of individuals who have actually participated in the program. They have an opportunity to see the program in operation and do not feel pressured to perform immediately in the new environment.

In programs having larger numbers of residents, this could prove impractical with the attendant pressures of finishing patient treatment, distractions associated with new assignments or additional training, etc. Under these circumstances, the potential negative attitudes of the previous year residents would probably not provide a positive orientation program.

If the program is a two-year program, second-year residents can be used as faculty for the orientation.

At all times, let the staff and residents who are most familiar with each program component orient the new residents. For example, the director of the program can explain the philosophy and objectives of the program, but the receptionist would probably be the best person to explain scheduling of patients and a dental assistant could best describe equipment and supplies.

The orientation process should not be thought of as something that happens only at the beginning of a program. It starts at the initial interview and extends throughout the course of the program. It will only be of value if it is ongoing and addresses itself to the informational and social needs of the resident in each new setting. In this manner it will help the residents in the variety of clinical and learning experiences to which they are exposed over a period of time.

One of the most common failings of an orientation program is to saturate the residents with too much information; so keep the orientation simple and relevant.

All programs should develop manuals which can serve as reference books for residents. This manual should contain detailed descriptions of all components of the program. Some institutions will already have manuals available which detail the policy and procedures of the institution. These can be incorporated into the general practice residency program manual. An example of the contents of a comprehensive resident manual is included in Appendix D.

Orientation Program Content

Once the objectives of the orientation program have been set, it is necessary to see what will fulfill these objectives.

Objectives and Philosophy of the Program. After welcoming the residents, they should be told the objectives of the program. These objectives should be expressed verbally to the residents as well as recorded in the manual. Some examples of program objectives are as follows.

After having completed this program, the resident should be: (1) enthusiastic about and committed to pursuing a career in the general practice of dentistry, and (2) able to provide a comprehensive range of dental services for all patients, including those who are medically or emotionally compromised.

Outline of the Learning Experiences Available. The content of the program should be briefly described, schedules should be distributed, and relationships to the objectives discussed. Residents should be encouraged to ask questions and express their views on their expectations of the program.

Provide Residents with Information About the Institution and the Clinical Situations and Help Them Use this Information to Function Efficiently in These Settings. Large institutions, where the dental service is one of many services, will usually have an orientation program for all residents or house staff that covers many of these topics. Dental residents should attend, but it should be determined what is covered so that duplication or omission is avoided in the dental orientation program. Topics should include the following: the physical facility and equipment, policy and procedures of the hospital and clinic, patient flow, records, patient financial arrangements, auxiliary personnel, resources available in the institution and area, use of diagnostic services (e.g., clinical labs, hematology, pathology, bacteriology, radiology, immunology), interaction with other departments, dental care insurance policies and procedures, clinical responsibilities of the resident, and use of dental laboratories.

Types of Social Situations. The various types of social interactions with which residents will be confronted during their orientation to the institution can be listed as follows: Resident-Teaching Staff, Resident-Paraprofessional and Clerical Staff, and Resident-Medical Staff.

Resident-Teaching Staff: The general dentistry residents are students as well as dentists. They have the pride associated with the recent acquisition of their doctoral degree and the awkwardness related to the recent status as lowly students. Whatever undergraduate dental education may have done to their egos, through the growth process of the residency program, their images of themselves should be elevated to the full status of independent professionals.

It is the responsibility of the teaching staff to facilitate this transition. The way in which this is accomplished will vary with the personality and professional stature of the teacher. In some cases, the teacher will be compatible with a relationship in which the status difference is gradually reduced over the period of the program until the resident and teacher are almost on a first-name basis. However, this need not necessarily be the case, particularly in a program where the clearly preeminent status of senior staff members would render such a relationship incongruous. Nonetheless, the teacher must allow residents to grow, as dentists and as persons, so that, at the completion of the program, full professional stature and self confidence have been developed.

During this process the dental staff must not hold back on constructive criticism for fear of either hurting residents' feelings or because it is difficult to criticize a so-called peer. In many of the general practice residency programs, there will be only one or two residents and a few key staff. Therefore, it is not uncommon for fairly close relationships to develop. Although it sometimes is difficult to offer the type of criticism that is necessary, the residency does offer a chance for an incredible rate of growth. In order for this to happen, however, there must be candor between staff and residents.

Resident-Paraprofessional and Clerical Staff: In social interactions within a general practice residency program, the resident is a transient. The dental assistants, dental hygienists, and nonprofessional personnel may perceive the resident as infringing on their territory. The resident must quickly learn where these territorial boundaries are and should learn to respect them, whether or not they seem rational. At the same time, the nonprofessional staff must learn to be tolerant of the resident's awkwardness and must learn not to fear or resent the resident's unintentional infringement.

Perhaps more important than the knowledge of rules conveyed in an orientation session is an early exposure of the attitudes and emotions involved in the interaction between the resident and the nonprofessional staff. A nonthreatening, informal get-together between the residents and the staff should be arranged very shortly after the arrival of the residents. At that time, relationships can be established which will help to minimize the effect of conflicts which will undoubtedly arise.

Resident-Medical Staff: One of the important realities within the hospital setting is that dentists are relative newcomers and will have spent little time during dental school working in a hospital. They might, as a result, feel initially uncomfortable interacting with their fellow health professionals. The orientation program should stress the integral role the dentist has within a hospital. It should also allow residents to express their own feelings regarding their interaction with their medical colleagues. It is especially important that the staff be supportive of new residents and be good role models in personal interactions within the institution. It might be useful to arrange an informal get-together involving the residents, dental staff, and key members of the medical staff.

Depending on the complexity of the institution, the orientation program can take from one day to a week or more. Remember, do not provide the information in a vacuum, but allow the residents to use the information in hypothetical situations before functioning in the real setting. It is also important to ease them into the clinic by scheduling patients lightly until there is increased familiarity with the setting.

Some aspects of the didactic program should be considered part of the orientation program, since the information and skills provided are immediately required of the resident. For example, the emergency room assignment will contain elements of many aspects of patient care and use of the facilities of the institution; specifics of emergency treatment should be reviewed in sufficient detail to give the resident confidence.

This is an important assignment, since it is in the emergency department that residents will interact with medical colleagues and the nursing staff. Adequate preparation from the beginning is important. Inadequate training and a poor attitude will negatively affect the dental service. Above average skills and a professional approach will have many positive benefits. The significance of emergency room care is emphasized in the following paragraph:

> He should have hospital emergency room experience and should learn to function as a member of the emergency team. *GPR Requirements: page 3, paragraph 4.*

A further example is that of the physical diagnosis course. A course in physical diagnosis given early in the program will help the resident to feel comfortable and function effectively in the provision of care for both ambulatory and inpatients.

WORKSHEET NUMBER 5

Orientation of Residents

Directions: After studying this chapter, answer these questions. Your answers should help you develop an appropriate orientation program for the residents of your general practice residency program.

1. What objectives do you have (plan to have) for your orientation program?

2. Describe the major content of the orientation program you have (or plan to have).

3. How will you plan (do you plan) to integrate the new residents with the hospital staff?

4. What procedures do you (will you) have for helping your residents handle frustrations during their orientation period?

Chapter 6—Methods for Program Evaluation

Introduction

Evaluation is an integral part of all components of a general practice residency program. Simply stated, evaluation means that a judgment is made as to the quality of a program or some aspect of the program.

Objectives

After the reader has finished this chapter, there should be a better understanding of the following concerning evaluation:

1. the importance of planning an evaluation system before beginning or enlarging a program,
2. types of external and internal evaluation systems available,
3. the ADA evaluation (accreditation) system,
4. evaluation methods used in various existing programs, and
5. adaptation or modification of existing evaluation systems for a specific program.

Importance of Evaluation

A good evaluation system is important because it can be used to help create and improve programs. This is so because the evaluation system points to goals or objectives for the general practice residency program. Further, after an evaluation has been carried out, the results can be used to modify the goals and change the general practice residency program itself. This is a never-ending process.

As a result of its importance, evaluation is a fundamental part of the accreditation and funding process. An approved general practice residency program must meet the requirements of the ADA. Part of these requirements involve evaluation of the residents by the general practice residency administration and faculty. Funding from external sources (such as the federal government) also generally requires careful evaluation. Thus, planning an evaluation system *before* beginning or enlarging a general practice residency program makes it easier to have a good program that will be accredited and funded.

Types of External and Internal Evaluation Systems

External evaluation refers to an evaluation system created by some agency or institution to judge the quality of a general practice residency program. One such system is the set of ADA requirements. It was created by the Commission on Accreditation of Dental and Dental Auxiliary Educational Programs of the ADA (hereafter referred to as "Commission"). The system is used by consultants in determining the accreditation level of a program.

Internal evaluation refers to an evaluation system created by a director and staff to judge the quality of their own general practice residency program. Most existing general practice residency programs use both the ADA external system and some additional internal system. In this way, they can help themselves to meet accreditation standards and also are able to judge the achievement of some unique aspects of their programs (e.g., community service for a special population) that the ADA *Requirements* do not incorporate.

The ADA Evaluation System

On June 1, 1977, the ADA, through its Commission distributed the most recent revisions of its *Guidelines and Requirements* for general practice residency programs in dentistry. Along with these, an applicant for accreditation must use a self-study manual. Copies of all of these documents can be obtained by writing to: Advanced Dental Education, American Dental Association, 211 East Chicago Avenue, Chicago, Illinois 60611. To give some idea of the components of a general practice residency program that the ADA evaluates, the main categories are outlined here.

Outline of Topics from the
Requirements and Guidelines for the General Practice
Residency Programs in Dentistry

1. Definition
2. Goals of general practice residency programs
3. Administration and staffing
   a. sponsoring institution
   b. program director
   c. teaching staff
   d. support and auxiliary staff

4. Facilities and resources—use of private practice facilities
5. The educational program
6. Clinical program
    a. inpatient care
    b. emergency care
7. Didactic program
    a. physical evaluation
    b. hospital protocol and administration
    c. applied pharmacology
    d. pain control
    e. clinical laboratory science
    f. departmental conference and seminars
8. Evaluation of residents
9. Research and teaching
10. Records

Notice that these ten items define this external evaluation system. Also notice that each general practice residency program must establish its own methods for evaluating its residents (item 8). Here is where a program can adapt or modify material of another program or can create its own internal system.

Evaluation Methods Used in Various Existing General Practice Residency Programs

At this point is should be helpful for the reader to see several examples of different kinds of evaluation methods and forms used by existing general practice residency programs.

Residents must be formally evaluated at least quarterly to determine that they are meeting the qualitative and quantitative standards of the educational program. Therefore, a mechanism must be developed to formally assess residents on a continuing basis. In addition, during their close contact in delivery of care, residents should be evaluated informally on an ongoing basis by staff. *GPR Guidelines: page 19, paragraph 1.*

Exhibit A illustrates a summary form for evaluating the care rendered by the resident. This progress report indicates the kind of treatment record, relationships, and personal qualities which this general practice residency program looks for in its residents. It includes a detailed set of criteria used to evaluate the dentist's care of the patient. This form certainly indicates quite clearly the specific objectives which the teaching staff has for the resident's performance.

Exhibit B illustrates the use of a performance scale in evaluating specific qualities of resident performance.

Exhibit C incorporates many of the same content areas as Exhibits A and B but sets them up differently. Notice that it divides the areas into Technical Performance, Cognitive Performance, and Affective Performance.

Exhibit D is different from the others since it illustrates a system for collecting data that can document the quantitative requirements of the education program to meet ADA requirements, not just resident performance.

Residents should be required to maintain a diary of their daily activities. The log should include information about each resident's area of service; period of time assigned; number of patients treated on the dental service; number of operations performed or at which assisted; and number of lectures, seminars, and conferences attended. *GPR Guidelines: page 19, paragraph 3.*

These exhibits also show that each general practice residency program must be concerned with various kinds of evaluation. A total internal evaluation system could include: faculty evaluation of residents, resident evaluation of resident, resident evaluation of faculty, resident evaluation of programs, and patient evaluation of programs.

These five types indicate that the resident gives and receives evaluation data. In effect, the resident can benefit from receiving feed-back from faculty, other residents, and patients. This information should help his/her performance. Likewise, the resident's judgments of faculty and other aspects of the general practice residency program can help improve the program.

Exhibit E illustrates how residents evaluate several aspects of one program. The complete evaluation form contains similar questions for each didactic and clinical area.

Adapting or Modifying Existing Evaluation Systems

It should be clear by now that if an ADA-approved program is desired, the accreditation evaluation system created by the Commission must be modified and perhaps even exceeded. Exhibits A-E might be utilized or additional information can be obtained by writing to members of the Steering Committee listed in the Acknowledgments of this manual.

To modify any existing evaluation systems, the following steps can be followed.

1. Compare the objectives of the existing general practice residency program with those stated or implied by the external system being considered.

2. Change the existing evaluation forms to be consistent with program objectives.

3. Add evaluation forms and items for the objectives that are not met by item 2 above.

4. Try out these revised and new forms and items with a sampling of residents and staff members.

5. Based on this sampling, make revisions and use the revised forms for two or three years.

Because general practice residency program faculties are not usually expert in evaluation, carrying out these steps (as well as initiating an evaluation system) might be facilitated by hiring evaluation consultants available from the Behavioral Science Section of the AADS.

WORKSHEET NUMBER 6

Evaluation Systems

Directions: After studying this chapter, answer these questions. Your answers should help you determine the next steps necessary concerning the evaluation system.

1. What is a general practice residency evaluation system?

2. What is an external evaluation system?

3. What is an internal evaluation system?

4. Describe the external evaluation system of the ADA.

5. If you already have a general practice residency program, what evaluation system do you use?

(continued on next page)

WORKSHEET NUMBER 6—Evaluation Systems (continued)

6. If you already have a general practice residency program, what is your opinion of the quality of your evaluation system?

7. In terms of your answer to item 6, what needs to be done concerning your present evaluation system?

8. If you do not now have a general practice residency program, describe what you plan to do to adapt or modify an existing evaluation system.

EXHIBIT A

Department of Dentistry
Quality Care Evaluation Data

Resident ______________________ Evaluator ______________________

Patient ______________________ Date ______________________

	GOOD	FAIR	POOR
1. PATIENT RELATIONS			
a. Interaction with patient	☐	☐	☐
b. Adequacy of clinical examination	☐	☐	☐
c. Pain control	☐	☐	☐
2. RECORDS			
a. Clarity of dental record	☐	☐	☐
b. Completeness of dental record	☐	☐	☐
c. Clarity of medical evaluation	☐	☐	☐
d. Completeness of medical evaluation	☐	☐	☐
3. DIAGNOSTIC			
a. Adequacy of radiographs	☐	☐	☐
b. Quality of radiographs	☐	☐	☐
c. Adequacy of diagnostic casts	☐	☐	☐
d. Quality of diagnostic casts	☐	☐	☐
4. PREVENTION			
a. Preventive care program	☐	☐	☐
b. Preventive care implementation	☐	☐	☐
5. RESTORATIVE			
a. Tooth preparation	☐	☐	☐
b. Base-liner application	☐	☐	☐
c. Choice of restorative material	☐	☐	☐
d. Marginal adaptation and contacts	☐	☐	☐
e. Anatomy	☐	☐	☐
f. Occlusion	☐	☐	☐
g. Esthetics	☐	☐	☐
6. REMOVABLE PROSTHODONTICS			
a. Retention of Prosthesis	☐	☐	☐
b. Stability of Prosthesis	☐	☐	☐
c. Jaw relation-vertical dimension	☐	☐	☐
d. Dental articulation	☐	☐	☐
e. Esthetics-phonetics	☐	☐	☐
7. FIXED PROSTHODONTICS			
a. Tooth preparation	☐	☐	☐
b. Choice of restorative material	☐	☐	☐
c. Marginal adaptation and contacts	☐	☐	☐
d. Anatomy	☐	☐	☐
e. Occlusion	☐	☐	☐
f. Esthetics	☐	☐	☐

(continued on next page)

EXHIBIT A—Quality Care Evaluation Data (continued)

Resident ______________________ Evaluator ______________________

Patient ______________________ Date ______________________

	GOOD	FAIR	POOR
8. PEDODONTICS			
a. Child management	☐	☐	☐
b. Restorations	☐	☐	☐
c. Stainless steel crowns	☐	☐	☐
d. Space management	☐	☐	☐
e. Analysis/knowledge of growth and development	☐	☐	☐
9. ENDODONTICS			
a. Selection for endodontic therapy	☐	☐	☐
b. Biomechanical technique	☐	☐	☐
c. Final obturation	☐	☐	☐
d. Resolution of lesions	☐	☐	☐
10. PERIODONTICS			
a. Periodontal diagnosis	☐	☐	☐
b. Selection for periodontal therapy	☐	☐	☐
c. Removal of plaque retentive factors	☐	☐	☐
d. Patient understanding of plaque control	☐	☐	☐
e. Stabilization of loose teeth	☐	☐	☐
f. Technical skill	☐	☐	☐
g. Follow-up care	☐	☐	☐
11. ORAL SURGERY			
a. Surgical diagnosis	☐	☐	☐
b. Management of hard tissue	☐	☐	☐
c. Management of soft tissue	☐	☐	☐
d. Management of sterility	☐	☐	☐
e. Post operative care	☐	☐	☐

EXHIBIT B

General Practice Residency Program
Evaluation of Cognitive and Psychomotor Performance

Resident ______________________ Department ______________________

Dates of Observation ______________________ Evaluator ______________________

PLACE AN "X" ON THE AREA WHICH REFLECTS YOUR EVALUATION OF THE RESIDENT

1	2	3	4	5
About 80 percent of all procedures need refinement to bring the quality up to minimum acceptable standards		About 25 percent of all procedures need refinement to bring the quality up to minimum acceptable standards		Completes nearly all procedures on his/her own and rarely needs to refine work to meet minimum acceptable standards

1	2	3	4	5
Exerts poor judgment in the selection of diagnostic procedures and their interpretation		Uses available data to select diagnostic procedures and develops logical differential diagnosis		Consistently shows excellent diagnostic abilities in both usual and unusual cases through understanding of differential diagnosis

1	2	3	4	5
Histories and physicals are inadequate for this level of training		Histories and physicals are adequate		Histories and physicals are very thorough and complete. Well versed in techniques and procedures of data collection.

1	2	3	4	5
Unable to discuss dental disease and therapeutics with any confidence or accuracy		Demonstrates adequate knowledge of dental disease and therapeutics		Has a superior knowledge of dental disease and therapeutics and can intelligently communicate this knowledge

General Comments Concerning Clinical Competency: ______________________

EXHIBIT C

General Practice Residency Program
Evaluation Form—Clinical Assignments

Resident ______________________ Date ______________________

Period of Observation ______________________ Evaluator ______________________

Clinical Assignment ______________________

PLACE AN "X" ON THE CONTINUUM WHICH REFLECTS YOUR EVALUATION OF THE RESIDENT

TECHNICAL PERFORMANCE—Evaluate one or more of the following six clinical disciplines using the rating scale described below.

1	2	3	4	5
About 80 percent of all procedures need refinement to bring the quality up to minimum acceptable standards		About 25 percent of all procedures need refinement to bring the quality up to minimum acceptable standards		Completes nearly all procedures on his/her own and rarely needs to refine work to meet minimum acceptable standards

A. RESTORATIVE DENTISTRY

1 2 3 4 5

B. PROSTHODONTICS

1 2 3 4 5

C. ENDODONTICS

1 2 3 4 5

D. PEDODONTICS

1 2 3 4 5

E. PERIODONTICS

1 2 3 4 5

F. ORAL SURGERY

1 2 3 4 5

COGNITIVE PERFORMANCE

G. LITERATURE REVIEW

1	2	3	4	5
Unable to carry out search of literature independently		Acts independently to carry out literature search		Able to analyze literature and provide critical summaries

H. SEMINAR OR LECTURE PRESENTATION

1	2	3	4	5
Has great difficulty in stimulating and maintaining the group's interest		Needs some experience and guidance, but on the whole a good presentation		Very polished leader/lecturer. Maintains interest of group, uses time productively.

EXHIBIT C—Evaluation Form—Clinical Assignments (continued)

I. DIAGNOSTIC PROCEDURES

1	2	3	4	5
Exerts poor judgment in the selection of diagnostic procedures and their interpretation		Uses available data to select diagnostic procedures and develops logical differential diagnosis		Consistently shows excellent diagnostic abilities in both usual and unusual cases through understanding of differential diagnosis

J. HISTORIES AND PHYSICALS

1	2	3	4	5
Histories and physicals are inadequate for this level of training		Histories and physicals are adequate		Histories and physicals are very thorough and complete, well versed in techniques and procedures of data collection

K. TREATMENT PLANNING

1	2	3	4	5
Unable to discuss dental disease and therapeutics with any confidence or accuracy		Demonstrates adequate knowledge of dental disease and therapeutics		Has a superior knowledge of dental disease and therapeutics and can intelligently communicate this knowledge

L. COMMUNICATION SKILLS

1	2	3	4	5
Exhibits difficulty in communicating with his/her patients and co-workers		On the average, has no difficulty communicating with his/her patients and co-workers		Extremely skillful in communicating with his/her patients and co-workers

M. INITIATIVE

1	2	3	4	5
Shows little initiative or interest in daily activities		Moderately interested and industrious		Extremely interested and industrious

N. COOPERATION

1	2	3	4	5
Does not go out of his/her way to help others		Works well with a limited number of individuals		Works well with everyone

O. RELIABILITY

1	2	3	4	5
Consistently late or fails to attend scheduled clinical activities		Occasionally late or fails to attend scheduled clinical activities		Punctual and conscientious in attending all scheduled clinical activities

General Comments: ____

____

____

____

____

____

____

EXHIBIT D

MEDICAL/DENTAL CENTER

Documentation of Records Services

According to the new rules of the Commission on Accreditation, the Council on Dental Education, and the Council on Hospital Dental Services of the American Dental Association, the following procedures will be followed to document and record the required data.

I. Collection of Information

A. Chart Review and Audit

1. Outpatient charts—a minimum of 20 charts per week will be randomly selected. A summary of examination and procedure data will be recorded and a copy will be kept in the main file.
2. Inpatient charts—a copy of dental examination and procedures from all inpatient charts will be kept in the main file.

   (If corrections are to be made on the inpatient chart, they will be referred to the involved doctors and be followed up weekly until the chart has been corrected.)

B. Chart Completion (Outpatient Department)

1. All diagnostic data, including clinically acceptable radiographs, must be checked by a supervisor. If the chart is not present, the patient cannot be treated.
2. The charts shall be completed on a daily basis.
3. Each chart must be stamped daily in advance of the visit. An entry must be made for each date.

C. Documentation and Evaluation of Services

1. By resident—a diary of services must be maintained on a weekly basis. This includes the number of patients and procedures in the Outpatient Department, inpatients, and Emergency categories.
2. By staff—an evaluation of at least five treatment procedures will be completed for each half-day session on a random basis.

D. Utilization Review Committee

A weekly total statistical review which will be completed and will analyze the level of productivity and utilization of the facility.

EXHIBIT E

Anonymous Program Evaluation

Program General Practice

Date

Evaluation: A B C D

	A	B	C	D
Prosthetics				
1. Clinical Experience	☐	☐	☐	☐
2. Lectures and Seminars	☐	☐	☐	☐
3. Attending Staff	☐	☐	☐	☐
4. Recommended Changes	☐	☐	☐	☐
5. Good Instructors	☐	☐	☐	☐
6. Poor Instructors	☐	☐	☐	☐
Endodontics				
1. Clinical Experience	☐	☐	☐	☐
2. Lectures and Seminars	☐	☐	☐	☐
3. Attending Staff	☐	☐	☐	☐
4. Recommended Changes	☐	☐	☐	☐
5. Good Instructors	☐	☐	☐	☐
6. Poor Instructors	☐	☐	☐	☐

* * *

VIII. Rounds

- a. Experience
- b. Comments and Recommendations

* * *

IX. Journal Club

* * *

Questions

- a. If you had to do it all over again, would you select this program?
- b. Name the three best teachers in the program:
- c. Name the three strongest areas in the program:
- d. Name the three weakest areas in the program:
- e. What would you add to the program?
- f. What would you eliminate?

Section III

Areas of Instruction in General Practice Residency Programs

Introduction

The reader is already aware of the Commission on Accreditation requirements as discussed in the Introduction and in Section II, Chapter 6 of this manual. Accordingly, it is obvious that an approved program must include certain instructional areas.

As the reader studies this information, certain curriculum principles should be kept in mind. These are important since each general practice residency program director and staff must decide on the *specific* instructional content and teaching methods that will be used. Each program may emphasize certain subject matter somewhat differently and use slightly different teaching methods. Therefore, use the following principles in developing the curriculum.

Make a Needs Assessment. The first step in developing the curriculum should be to articulate the needs of the particular program. These should be stated in terms of general goals, e.g., "to meet the accreditation requirements of the Commission on Accreditation." Needs should also be stated in terms of local circumstances; for instance, they should relate to meeting the dental needs of some particular patient population. General needs should also be defined in terms of restrictions of the parent institution.

In Section II of this manual, there are specific references to the kinds of information needed before developing the residency program (institutional and human support, financial considerations, etc.). This same information can now be used to help with the "needs assessment."

Identify Instructional Objectives. After all of the perceived needs of the program have been delineated and goals outlined to meet those needs, instructional objectives should be written for each of the goals. This is undoubtedly the most important step in the development of a curriculum and is frequently mismanaged. Consider this step very carefully.

Some readers may want to write these instructional objectives in behavioral form. (Sometimes funding agencies require objectives to be stated this way.) If so, state each one so that an *active verb* suggests the action the *learner* will carry out if this objective is to be reached. Thus, if the original instructional objective was "teach the resident the nature of clinical rotations," this becomes "the resident will remember the five different types of institutional rotation settings." Notice that the learner (resident) will *remember* something. Also note the *specific information* to be remembered is listed. If the reader wants further information on how to write behavioral objectives, there are many standard educational texts dealing with this subject.[1]

Identify General Content. Appropriate content for a program can be identified only after definitive instructional objectives have been written. This is probably the easiest step in developing the curriculum, especially if the reader is an expert in the field. But the step must be taken cautiously, *after* the instructional objectives have been developed. The three major content areas have already been listed in this manual. However, keep in mind these are general in nature, and may not be suited to every program.

Identify Teaching Methods. In practical terms, the teaching methods which are available are lecture, demonstration, participation, discussion or seminar, role playing, independent study or reading, and problem solving. Each approach has its place, but it should be emphasized that learning occurs best when the learner is actively involved. The appropriate teaching method related to each instructional objective or set of related objectives should be identified.

The curriculum should not be carved in stone, but should be written in considerable detail. A thinly documented curriculum will result in a shallow program. Since it would be difficult, under such circumstances, to identify exactly what had been taught or what was supposed to have been taught, it would likewise be difficult to determine what has been learned. Ultimately, the curriculum must be evaluated and this can only be done by using the stated objectives: did the residents learn what they were supposed to have learned?

In the following chapters, detailed information will be given that can be used in creating the reader's own instructional program. As you fill out the worksheets, try to use the general principles discussed here.

REFERENCE

1. Mager, F. *Preparing Instructional Objectives.* Belmont, Calif.: Fearon • Pitman Publishers, Inc., 1962.

Chapter 1—Dental Didactic Program

Introduction

A sound didactic program can be established in an institution with a small staff and limited facilities as well as within dental schools, hospitals, or universities with larger facilities. Although the scope of the program may differ, the principles are the same. The didactic programs should be more than a repetition of the course work in dental school and should be based on primary source material. The ability to read the literature critically is necessary if the resident is to understand and evaluate techniques and new approaches to treatment generated by dental scientists.

> A General Practice Residency Program must be designed to provide adequate educational opportunities for the trainee rather than provide primarily a service to the hospital. *GPR Requirements: page 1, paragraph 5.*

Objectives

After reading this chapter and filling in the worksheet, the reader should have learned:

1. to identify the types of dental didactic activities that should be incorporated in a general practice residency program,
2. to identify the factors necessary in establishing a curriculum,
3. to outline the steps in the development of a didactic activity,
4. to develop didactic activities, and
5. to involve the resident in lecture and seminar preparation.

The assessment of dental education needs for a general practice residency program is based on the director's judgment of the program. It will be necessary to seek advice and assistance from colleagues, residents, and published material, but the success of the educational content will rise or fall with the time devoted to the program, as well as the director's abilities and motivation.

> The program director must maintain direct and close supervision of all aspects of the educational program and must devote sufficient time to the program to assure that its educational objectives are fulfilled. *GPR Guidelines: page 8, paragraph 6.*

> Responsibilities of the program director include: (1) resident selection; (2) development and implementation of curriculum plan; (3) ongoing evaluation of program content, faculty teaching, and resident performance; (4) program administration; (5) planning and operation of facilities used in the educational program; (6) evaluation of residents' training and supervision in affiliated institutions; and (7) maintenance of records related to the educational program. *GPR Guidelines: page 9, paragraph 1.*

The other two chapters in this section of the manual discuss educational activities directly related to assignments in the dental clinic and the hospital. This chapter discusses those didactic activities that are the foundation of the dental clinic assignments.

What do we mean by the term didactic? It should be a systematic, formally scheduled, educational activity that is planned to complement the clinical dental program.

What are the Areas Around Which Didactic Activities Might Center?

1. Diagnosis and treatment planning
    a. patient evaluation
    b. interviewing methods
    c. clinical case presentation
2. Clinical disciplines
    a. preventive dentistry
    b. operative dentistry
    c. prosthodontics (fixed and removable)
    d. oral surgery
    e. periodontics
    f. endodontics
    g. pedodontics
    h. orthodontics
    i. anesthesiology and pain control
3. Oral pathology
4. Biologic basis of dentistry (e.g., saliva, oral mucous membranes, etc.)
5. Evaluation of the dental literature
6. Social and behavioral sciences
7. Practice management

> In order to promote achievement of program objectives and effective program administration, the director should develop a definitive statement of what is expected of the teaching staff and should distribute this statement to all staff members. Further, he should prepare and assure implementation of schedules of staff assignments and of seminars and lectures to be offered as part of the educational program. *GPR Gudelines: page 9, paragraph 2.*

Establishing a Curriculum

For the purposes of this manual, a curriculum is defined as a set of didactic activities which will help achieve the educational goals of a general practice residency program. The term "didactic activity" has been selected in preference to "course" since the latter term is generally associated with formal coursework in undergraduate school and dental school and, therefore, may have a negative connotation.

> The educational program should be well structured to meet clearly stated and measurable objectives. The general practice residency should be designed to provide additional knowledge and skills at a postdoctoral or graduate level and should provide the foundation for independent study and professional growth. *GPR Guidelines: page 12, paragraph 3.*

How Many Activities Should be in a Residency Program? Although elements of all these activities may be incorporated in a one- or two-year program, it would be impossible to include each subject in depth. It is important for each program director to establish priorities.

Frequent questions on curriculum development concern how rigidly the *Guidelines* for accreditation are interpreted by site visitors. Actually, the *Guidelines* are quite flexible. The issue of greater concern to site visitors is whether you are doing what you say you are doing.

In developing or improving programs individuals may have questions relating to the accreditation process or interpretation of the *Requirements and Guidelines.* They may write the following person: Secretary, Commission on Accreditation, American Dental Association, 211 East Chicago Avenue, Chicago, Illinois 60611.

The American Association of Dental Schools provides a hospital dental consultation service which can answer many of your questions. Contact: Executive Director, American Association of Dental Schools, 1625 Massachusetts Avenue, N.W., Washington, DC 20036.

Frequently a director may utilize coursework provided by a hospital, university, dental school or dental society for the program. Although these courses may have merit, they are usually not designed for a graduate program in general dentistry. You may think that they look good on paper, but do they meet the objectives of your program?

The following are general guidelines to be followed in establishing a curriculum for dental topics for all programs.

> **The program director should take responsibility for defining broad program objectives. It is important to have the understanding and the concurrence of the teaching staff. Suggestions for new activities and evaluations of previous activities by the residents are important but have to be placed in perspective. Resident evaluation as to whether program objectives have been achieved has far more merit than utilizing residents to establish program objectives.**
>
> **The selection of specific subjects of didactic activity should logically follow the establishment of objectives.**
>
> **Each specific didactic activity should have its own clearly defined set of objectives. The scope and depth of each activity should be established. How many sessions are involved? When will the activity be scheduled? Who will be responsible for coordinating the activity? One individual should be selected to coordinate clinical and didactic activity in each subject. In a small program, one individual may wear a number of hats. That individual will be responsible for identifying goals, coordinating teaching staff, establishing topics, scheduling of activities, etc.**
>
> **The content of each activity should be determined in detail.**
>
> **The topic coordinator and/or instructors have to understand, rather than assume, the level of knowledge of the residents. Time should be set aside at the beginning of the program to review the background knowledge of the residents.**
>
> **Teaching methods should be selected that are appropriate for the activity.**

The outline below can be followed for the development of each didactic activity. It helps the dental educator to organize the didactic activity and to define clearly to residents what to expect and what is expected of them.

> The seminar and conference program should contain a didactic component for each discipline involved and be planned to complement the clinical program. Content should be specifically designed for the residents, and not simply a repetition of predoctoral courses. Emphasis in content should reflect the individual program's particular objectives and resources. *GPR Guidelines: page 18, paragraph 1.*

Description. This is an overview of the content and the procedures. It is similar to the description of a course that may appear in a college catalog.

Objectives. This is what a successful learner should be able to do at the end of the didactic activity.

Procedural Guidelines. An ideal time to start is 8:00 a.m., *before* patients are scheduled. Review your schedule and reduce or eliminate interference with other assignments. If there is a conflict and the outside rotation has priority, this should be clearly spelled out to avoid misunderstandings. The number of sessions will be based on the objectives of the didactic activity. Lectures should be no longer than an hour, and seminars are often more effective if they are two hours in length. Any small room will do—chalkboard and slide and overhead projectors are useful aids.

If a classroom is used for a seminar, arrange the chairs in a circle or around a table, so no one individual either is dominant or can avoid involvement. Start (and end) the seminar or discussion on time, even though some may come in late. Waiting for all who are expected to attend before beginning the activity will ensure that all scheduled didactic activity will start 20 minutes late throughout the year. Describe specific items in the seminar or discussion such as responsibility of the participants to read articles, time allowed for questions and answers, criteria for selection of case reports, outlines, abstracts or references that have to be prepared for the group as handouts, and responsibilities of seminar supervisor to aid the resident's preparation.

Since the resident may have responsibility for part or all of the presentation, his role should be described clearly. Perhaps a meeting devoted solely to this detail should be planned. Also, the first seminar or case presentation might be presented by a member of the teaching staff or a second-year resident who can serve as a model for future didactic activities.

Content. The content of the didactic activity should follow the objectives logically.

Positive Involvement of the Resident

Although a didactic activity in a general practice residency program may include lectures by individuals who are knowledgeable in their fields, the residents should have significant responsibility in preparing materials for presentation. The role of teaching staff in helping the resident to prepare to give a lecture is described as follows: (1) directing the resident to the literature, (2) reviewing the topic to insure that the resident is on the right track, and (3) critically evaluating the presentation of the resident.

Although the lecture is a common method of transmitting knowledge, a seminar or small group discussion has more merit in a typical general dentistry residency program because of the following.

Involvement. The seminar can be structured to involve all participants. All residents can be given reading assignments. The leader of the group can direct participation by skillful questioning.

Flexibility. If the discussion lags or there is greater interest in another facet of the topic, the leader can redirect the discussion.

Selectivity. Since the seminar or discussion format is less structured, a topic does not have to be reviewed in detail (duplicating material in dental school) but can focus on information of specific interest to the residents.

The role of the teaching staff in facilitating seminar preparation is the same as helping the resident prepare for a lecture with two additional areas. The member of the teaching staff may act as a resource person before and during the seminar or small group discussion. Also, he may serve as the discussion leader for the seminar in order to insure that all pertinent material is covered.

Library

An adequate collection of dental textbooks and journals is absolutely essential for a successful general practice residency program.

> Residents should be encouraged and stimulated to use the library and to report on current dental literature. The development of journal clubs is encouraged. *GPR Requirements: page 4, paragraph 1.*

A recent article in the *Bulletin of Medical Library Association*[1] presents excellent recommendations for a core collection, the cost ranging from $1,100 to $2,200.

The ADA is an excellent source of services and information. The ADA Bureau of Library Services can provide information and assistance in developing or enlarging a library, as well as loaning textbooks and providing package libraries which are collections of reprints on a wide variety of subjects. It is important to write for a catalog describing these package libraries and other materials for loan.

Another suggestion: There is a section in every issue of the *Journal of the American Dental Association* listing the latest ADA library additions, which can be borrowed for use in the program.

Available Teaching Aids

Although a wide variety of audio-visual aids are available, including closed circuit television, audiotape, motion pictures, chalkboard, the overhead projector and color slides, only the latter three are commonly used as teaching aids. Most clinicians who lecture become adept at using a 35mm camera for intraoral photography and for copying material from texts. Transparencies of printed material can be reproduced readily by xerography, using a special transparency material for use with an overhead projector.

A didactic program also involves speakers from the attending staff and other departments. Most speakers will appreciate the following information: (1) who the audience will be and what their level of knowledge is; and (2) the objectives of the lecture or seminar; what the residents are expected to learn as a result of the lecture or seminar; and if the lecture is part of a series, what the overall objectives and the other topics are.

Some of these questions may be discussed at the time of the original invitation. For an outside speaker, a letter of thanks for accepting the invitation, restating pertinent information and reviewing the agreed upon content is worthwhile. For your own staff, a memo with clear objectives, procedures, and content to be covered is equally important.

Four examples of didactic activity are presented in Appendix E: a literature review for a specific clinical subject—fixed prosthodontics, case presentation and treatment planning, social and behavioral sciences, and evaluation and methods of dental research.

Although all four topics are different, there are similarities in the way each topic is presented. These are just examples. The important point is to remember the principles. All have brief descriptions, clear objectives, definite procedures, and well-defined contents.

Evaluation

In the Introduction to this section of the manual and in this chapter, there is a discussion of how to define teaching objectives. Evaluation, of course, is an attempt to measure the success in achieving these objectives. In most cases, formal written exams may be inappropriate. The traditional alternative is a periodic evaluation, and examples of this type of evaluation are shown in Section II, Chapter 6, "Methods for Program Evaluation." The leader of the didactic activity can evaluate the resident's performance for a particular activity. The program director can evaluate the resident's overall performance. The resident's performance should be measured against the established teaching objectives, which may be different for a single presentation than for an overall judgment. These evaluations can be used when the program director and the resident meet for their periodic review of the resident's performance. A letter or number grade has limited value. The resident can benefit more from descriptive, constructive comments to reinforce a job well done or to suggest areas that need improvement.

Evaluation by the residents of a didactic activity or an individual lecturer can be equally important. The value of the didactic activity can be assessed and the program director can use the summary of the evaluators either to discontinue, to discuss in an objective manner, or to compliment the lecturer for his effort. Some programs, especially those which are affiliated with universities, may give written assignments or mock clinical boards which can measure attainment of teaching objectives. This also is frequently done in specialty programs.

REFERENCE

1. Raskin, R.B. Selected List of Books and Journals for a Small Dental Library. *Bull. Med. Libr. Assoc.*, 64(3):265-271, July 1976.

(Reprints available from Robert B. Raskin, D.M.D., Director, Division of General Dentistry, Department of Dentistry, Nassau County Medical Center, East Meadow, NY 11554.)

WORKSHEET NUMBER 7

Didactic Program

Directions: After studying this chapter, answer these questions. Your answers should help you determine the appropriate didactic activities for your general practice residency program.

1. What types of didactic activities do (will) you include in your general practice residency program?

2. Describe the process you went through (will go through) in creating your didactic activities.

3. List the content (discipline) areas you include (will include) in your didactic program.

4. Use the outline presented in this chapter (description, objective, procedural guidelines, content) and present a didactic activity below.

   a. Description

   b. Objectives

   c. Procedural Guidelines

(continued on next page)

WORKSHEET NUMBER 7–Didactic Program (continued)

d. Content ____

____

____

____

____

5. Describe how you do (will) include the social and behavioral science content in your didactic program.

____

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Why do (will) you do it this way? ___________________________

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Chapter 2—Clinical Dentistry Assignments

Introduction

The provision of high quality comprehensive care to patients is both the foundation and the fabric of any general practice residency program. It is axiomatic that a program can only be as good as the patient care delivered in it.

> At least sixty percent of the time spent in the general practice residency should be devoted to the direct delivery of oral health care and should correlate patient care with formal instruction. *GPR Guidelines: page 13, paragraph 5.*

Therefore, it is imperative that the clinical assignments be structured in a manner which would allow residents to deliver high quality care, develop or strengthen attitudes that are patient oriented rather than student oriented as in dental schools, and benefit both attitudinally and educationally from the experience. A recent graduate from a dental school comes to a residency program armed with much theoretical information but little clinical experience. The resident should be stimulated to seek answers to clinical questions which are scientifically valid and soundly documented. Participation in clinical assignments by the resident should also allow development of additional skills in patient management and treatment.

> Special emphasis must be placed on at least two clinical specialty areas. However, no program can be considered adequate that does not include some advanced training and clinical experience in preventive dentistry, restorative dentistry (i.e., operative, fixed and removable prosthodontics), periodontics, endodontics and oral surgery. *GPR Guidelines: page 13, paragraph 6.*

Objectives

This chapter will provide the reader with the information needed to establish or improve clinical assignments for general practice residents, as well as discuss those issues that might be raised in regard to the assignments. After reading this chapter and filling in the worksheet the reader should know how:

1. to establish the objectives and content of a clinical assignment,
2. to determine the entering clinical behavior of the residents,
3. to determine clinical behavior upon leaving the program,
4. to establish the length of and format for the clinical assignments,
5. to orient the residents to the assignments,
6. to motivate the teaching staff to participate in and supervise patient care,
7. to evaluate clinical assignments,
8. to include diagnosis and treatment planning in the clinical setting,
9. to structure clinical assignments in a variety of settings, and
10. to provide clinical experience in dental specialty areas.

Establishing Objectives and Content of a Clinical Assignment

The first step in establishing or improving clinical assignments is to decide what the objectives of the experience for the residents are to be. The kinds of questions that might be asked are: What is the resident expected to learn from the assignment? What will the resident be able to do following the assignment? Are there attitudes the residents are expected to develop from the experience?

These objectives should be recorded *before* determining what the content of the assignment should be to meet these objectives. Once the goal has been established, then "how to get there" can be considered.

An example of objectives for a clinical assignment to an extended care facility for the handicapped, chronically ill, and aged follows.

Example. The resident on completion of the assignment should:

1. be aware of the increased need for care in this group of patients and feel positive and comfortable providing a broad range of services for them,
2. be able to provide a treatment plan for elderly patients with special consideration given for age-related changes,

3. be able to provide primary routine dental care for these patients,
4. be familiar with and able to use items of equipment and instrumentation especially useful in the treatment of these patients, and
5. be able to train a dental assistant or nurse to assist in providing dental care for older adults.

The resident should have an opportunity to provide treatment for both hospitalized and ambulatory patients with acute and chronic systemic conditions including special patients with physical and emotional problems who are under the care of the total health team.

In most programs, residents will spend a great deal of time in outpatient dental clinics providing comprehensive care. This kind of clinical assignment is ideal in the sense that the provision of a broad range of care in a primary care setting is one of the purposes of residency training. However, care should be taken to ensure that the resident is exposed to a sufficient number and variety of cases. This can be accomplished by initial patient triage or referral among residents. It should be emphasized that, to develop patient-oriented attitudes, clinical care be focused on the patient, rather than the resident. The needs of the patient should have priority over the educational needs of the resident, but both needs can be met and be mutually beneficial.

Entering Clinical Behavior of the Residents

To ensure satisfactory patient care as well as to establish a baseline for the educational experience, the entering clinical behavior of all residents should be determined. It is important to know their capabilities and previous experience in order to determine the level of supervision needed, as well as which clinical experiences would be most beneficial. Determination of entering clinical behavior is extremely difficult since there is a great deal of diversity in previous dental education and experience. The following might be useful in determining entering clinical behavior:

1. Clinical grades in dental school;

2. Close supervision and observation of residents as they take histories, develop treatment plans, present cases, and deliver services to patients (by far the most important method not only of determining the residents' baseline skills, but also of monitoring resident progress throughout the year); and

3. Specific questions to residents regarding their perceptions of their own clinical strengths and weaknesses.

An example of a questionnaire designed to provide this information follows.

Clinical Behavior Upon Leaving the Program

> Residents should be assigned patients who present increasingly difficult problems and should be given progressively greater clinical responsibility as they proceed through their training. *GPR Guidelines: page 14, paragraph 2.*

Determining clinical behavior on completion of the assignment or period of training should be done for each clinical assignment. Here is where an internal evaluation system is necessary, based on the objectives below and the criteria and forms outlined in Section II, Chapter 6.

> *Example.* A resident is given an oral surgery assignment. The resident's anticipated clinical behavior by the end of the assignment should fulfill these objectives: perform uncomplicated and surgical exodontic procedures of all erupted teeth, remove atraumatically all soft tissue third molar impactions, perform soft tissue oral biopsies, and perform alveoplasties and apicoectomies.
>
> Those more highly motivated and capable should be expected to remove third molars that are impacted in bone, and perform hard tissue biopsies.
>
> Following the clinical assignment, the instructional staff should evaluate the residents as to their ability to perform these procedures.

Length and Format of Clinical Assignments

> Residents should be assigned patients who present increasingly difficult problems and should be given progressively greater clinical responsibility as they proceed through their training. Consultants should be available for review of these cases. As noted earlier, if the number or variety of patients in any aspect of the program cannot be provided, affiliated institutions must be used to supplement the educational program. *GPR Guidelines: page 14, paragraph 2.*

The length of clinical assignments can be on a daily or weekly basis or block assignments of a month or longer. The factors which should be considered when deciding on the length of and format for the assignment include the following.

Type and Availability of Assignment. The resources of an institution will influence the length of and format for an assignment. If an advanced oral surgery training program is present in the institution, residents could be given block assignments to oral surgery for a period of a month or longer. During that period they would function as oral surgery residents treating patients referred specifically for oral surgery procedures. If an oral surgery assignment is not available, residents could schedule their oral surgery patients on specific days when supervision would be available.

Continuity of Patient Care. Assignments should be arranged so that maximum continuity of patient care is afforded. One way to achieve this is to assign randomly to each resident a specific number of unscreened cases at the start of the year. This case load may number about 60 patients consisting of both children and adults and including patients with a variety of needs and problems. It is the resident's responsibility to provide all services needed by these patients. As the year progresses, and it is obvious that a resident is not getting enough experience in a specific area, additional patient assignments can be made to round out the resident's clinical experience in comprehensive care. If the resident is given a block assignment for two months in a clinical specialty, continuity of care can still be maintained by scheduling the resident's comprehensive care patients on two half-days a week during that period.

Fragmentation of Care. It is important that residents view patient care as a comprehensive, rather than fragmented, process. Many residents will have had training in specialty clinics in dental school. This kind

Past Experience Questionnaire

Kindly complete this questionnaire regarding your past clinical experience. Rank the areas from 1 to 3:

1–Minimal experience
2–Some experience, but need more
3–Enough experience to function efficiently

	Rank		
	1	2	3
Endodontics			
single rooted	☐	☐	☐
multi-rooted	☐	☐	☐
Preventive Dentistry			
diagnosis	☐	☐	☐
patient education	☐	☐	☐
Fixed Prosthodontics			
crowns	☐	☐	☐
inlays	☐	☐	☐
bridges	☐	☐	☐
Oral Surgery			
uncomplicated exodontics	☐	☐	☐
surgical exodontics	☐	☐	☐
soft tissue impactions	☐	☐	☐
bony impactions	☐	☐	☐
biopsy	☐	☐	☐
Pedodontics			
management	☐	☐	☐
restorative	☐	☐	☐
interceptive orthodontics	☐	☐	☐
Removable Prosthodontics			
full dentures	☐	☐	☐
partial dentures	☐	☐	☐
Periodontics			
diagnosis	☐	☐	☐
conservative periodontics	☐	☐	☐
surgical periodontics	☐	☐	☐
Restorative Dentistry			
alloys	☐	☐	☐
resins	☐	☐	☐
use of pins and posts	☐	☐	☐
Treatment of:			
handicapped patients	☐	☐	☐
elderly patients	☐	☐	☐
medically compromised patients	☐	☐	☐
emotionally compromised patients	☐	☐	☐
Other			
______________________	☐	☐	☐
______________________	☐	☐	☐
______________________	☐	☐	☐

This list can be enlarged to include other specific clinical entities.

of learning experience might provide the resident with excellent clinical training in that specialty area. However, it does not necessarily allow the resident to approach patient treatment as a process which involves an intertwining of all clinical and behavioral disciplines. For example, the resident treating a patient with periodontal problems in a specialty clinic might provide excellent periodontal treatment for that patient but ignore the future orthodontic, prosthodontic, and endodontic implications of that treatment. A method of avoiding this is to allow residents to move their patients through specialty block assignments, if these are available.

Availability of Faculty. The best clinical learning experiences for residents will be provided only if the faculty members are available and enthusiastic about patient care and teaching. It goes without saying that specific clinical assignments can be scheduled only if suitable faculty is available.

Link with Didactic Program. Clinical training cannot be separated from the didactic foundation upon which it is based. It is important to use current, well-documented, and scientifically sound dental knowledge as a basis for clinical judgment and treatment.

> The program should provide residents with supervised training and experience in patient evaluation, planning and treatment. An attending staff member should be scheduled to be present in the dental service at all times when the residents are delivering care. *GPR Guidelines: page 14, paragraph 1.*

Following are ways of coordinating the didactic program with clinical training.

1. Clinical assignments can be linked to seminar or literature review on specific subjects.

2. Residents should be expected to provide scientifically sound literature to support any clinical procedures they perform.

3. Faculty should provide residents with specific references to justify approaches to clinical problems.

4. Case presentations should be held on a regular basis and residents should be expected to present cases which pose interesting or unusual questions in clinical management. A comprehensive case presentation format can be found in dental didactic program, Appendix E.

Orient the Residents to the Assignments

All assignments should be preceded by an orientation period which familiarizes the resident with the objectives of the assignment, provides information about patient profiles in that dental discipline, describes physical facilities and equipment, and introduces faculty and auxiliary personnel.

Participation in and Supervision of Patient Care by Attending Staff and Faculty

It should be stressed to the teaching staff that participation with residents in patient care is the ideal form of supervision. The resident, although inexperienced, is a colleague and should be viewed as such by the faculty. The resident is going to benefit from an approach which stresses consultation with faculty about patient care rather than being told what they should do as in dental school. If teaching staff members see themselves as participants in patient care, they will be encouraged to follow up in the treatment of individual cases with the residents. Residents will utilize the experience of faculty to varying degrees. It is important to encourage resident-faculty interaction. There are various ways of doing so.

1. Residents should be expected to consult formally with a member of the teaching staff on all treatment plans.

2. All charts should be reviewed during treatment by members of the teaching staff.

3. Residents should be encouraged to seek opinions regarding treatment from more than one member of the teaching staff. Staff members should be told this is taking place to avoid possible staff friction.

4. Teaching staff should be encouraged to challenge the resident's concepts regarding patient care and vice versa. Obviously, this should not be done in front of the patient.

5. Residents should be involved in the treatment of patients who are treated in the institution by members of the teaching staff. This includes ambulatory patients and those admitted for inpatient care.

A climate of group participation in discussing patient care provides an excellent forum for discussing and challenging a variety of ideas regarding patient care. An example of a stimulating, clinically-related, learning environment could be the following.

> *Example.* A resident is treating a patient who requires endodontic treatment of a maxillary first molar. The resident consults with a member of the faculty who suggests that the canals should be filled with the silver point technique. The resident has been taught the warm gutta-percha technique at dental school. The resident disagrees with the faculty member's point of view. They seek out and exchange specific references relating to their

choice of material. The faculty member adds the dimension of many years of experience. They critique the references and decide on a method. The technique is discussed and the faculty member observes and participates in the actual treatment and follow-up care.

Faculty members should be expected not only to be good practitioners but also good teachers. They should be expected to keep abreast of all recent developments in their fields through journals and continuing education courses. Most will have had little formal training as educators and/or teachers and they should be encouraged to seek out and participate in courses on recent developments in education. Inservice training can be of value in this regard. The participation of an educational psychologist will be of great benefit to any faculty member concerned with resident education.

Evaluate Clinical Assignments

A clinical dental assignment can be well thought out, well structured, and have all the ingredients necessary to make for a good learning experience for the residents while they deliver high quality care. However, it may be difficult to demonstrate its effectiveness in meeting the objectives. To do so, effective evaluation criteria have to be established for: the assignment, resident's performance, quality of patient care, and faculty performance. (Refer to Section II, Chapter 6, Methods for Program Evaluation, for a detailed discussion of the evaluation process.)

Diagnosis and Treatment Planning

Diagnosis and treatment planning can be taught in a number of ways: as part of each clinical discipline, as a separate entity, in a seminar setting, and chairside, on a one-to-one basis.

Each of the above has merit, and if possible, a combination of techniques and settings is the best approach. Diagnosis and treatment planning can be discussed on a one-to-one basis between resident and faculty member in the clinic. This is the live situation and an essential part of the learning experience.

If, however, it is taught in a seminar format as a separate entity, the input of a larger number of people can be applied to individual cases. Residents then can benefit not only from the large variety of cases presented which pose clinical problems, but also from their participation in the treatment planning discussions.

A number of elements are important to include in teaching diagnosis and treatment planning. These are interviewing techniques, diagnostic aids, and treatment planning sessions.

Much treatment planning will take place between a resident and a faculty member as they participate in actual clinical situations. If there is group interaction in the clinical setting, these sessions will extend to informal discussions among residents and members of the faculty. However, it is advisable to provide some structure to these discussions to maximize their usefulness. This can be done in a number of ways.

1. Schedule a half-hour every day for residents and faculty to discuss treatment planning. Residents would bring the necessary diagnostic material and discuss treatment possibilities.

2. Treatment planning sessions could be part of specialty seminars.

3. Treatment planning could be part of a case presentation series.

4. Clinical pathologic conferences (CPC) could serve to integrate clinical treatment of pathology with diagnostic and prognostic aspects. CPC's should be held once a month. Participating faculty should include pathologists and clinical practitioners. Presentation should cover the clinical-pathologic features of interesting cases and encourage group participation. This can be done by: purposely leaving out important diagnostic information and involving the group in presenting their different diagnoses.

Clinical Assignment in a Variety of Settings

If logistics permit, residents should be allowed to gain clinical experience in settings other than the primary or home institution. Most institutions would be classified as one or more of these categories: acute care hospitals, chronic disease hospitals, extended care facilities, rehabilitation centers, and health centers.

In larger centers, one institution might serve a number of the above functions. Smaller institutions might limit themselves to one phase of care. The patient profile and oral needs of each of these categories will be different. Clinical experience in these institutions will broaden the residents' clinical skills and allow them to feel more comfortable dealing with a diversity of patients. These advantages must be weighed against the loss of control and supervision. Most programs offer so many opportunities that one must guard against diluting each experience.

If residents are to be assigned to any of these facilities for a period of time, the following factors should be considered.

1. Establishing links with these institutions. In order to establish an extramural clinical dental assignment, the institution must have facilities for clinical dentistry. If these do not exist and the outside assignment is important to the program, then the administration of the institution has to be convinced that there is a need and sound justification for establishing facilities.

In order to place residents in that institution, if clinical facilities exist, the director of that dental service has to be shown that this arrangement would be mutually beneficial in terms of patient services provided and the educational experience the resident will have.

The remaining factors to be considered in establishing extramural clinical assignments also apply to the "home" institution.

2. Establishing objectives
3. Determining content of assignment
4. Daily, weekly, or block assignment
5. Faculty (It is important to identify the faculty who will be responsible for supervision and evaluation of residents while on assignment.)
6. Orientation
7. Link with didactic program
8. Evaluation

Use of Private Practice Facilities

The Commission on Accreditation does not endorse the use of extramural private practice facilities as a means of providing clinical experiences for postdoctoral residents. If such assignments are made, they must not be considered as a part of the basic formal clinical education program. Rather, they should be considered merely as an adjunct to the program and should, therefore, be made only on a limited basis so as not to interfere with the residents' clinical education. The resident is not expected to provide patient care in this assignment, but will gain some insight into the functioning of an office.

Examples of Residents Schedules

Schedule for 1978-79 for Resident A

July	Comprehensive Care Clinic (CCC)
August	CCC
September	Oral Surgery (except Tuesday p.m. and Thursday p.m.—CCC)
October	CCC
November	Anesthesiology
December	CCC
January	Oral Surgery
February	Extended Care Facility
March	CCC
April	CCC
May	CCC
June	CCC

A typical weekly clinical schedule for Resident A could look like this:

Day	*Morning*	*Afternoon*
Monday	CCC	CCC (Pedodontic Supervision[*])
Tuesday	CCC (Orthodontic Supervision)	CCC (Periodontic Supervision)
Wednesday	Operating Room	CCC
Thursday	Extended Care Facility	CCC (Endodontic Supervision)
Friday	CCC (Removable Prosthodontic Supervision)	CCC (Fixed Prosthodontic Supervision)

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[*] On the half-days where specialty supervision is available, residents are expected to schedule their comprehensive care patients who require treatment in that specialty area.

Clinical Experience in Dental Specialty Areas

Dental programs, wherever possible, should attempt to provide residents with clinical experience in a number of specialty areas.

Special emphasis must be placed on at least two clinical specialty areas. However, no program can be considered adequate that does not include some advanced training and clinical experience in preventive dentistry, restorative dentistry (i.e., operative, fixed and removable prosthodontics), periodontics, endodontics and oral surgery. *GPR Guidelines: page 13, last paragraph.*

WORKSHEET NUMBER 8

Clinical Dental Assignments

Directions: After studying this chapter, answer these questions. Your answers should help you determine the appropriate clinical dental assignments for your general practice residency program.

1. What objectives exist (will exist) for your clinical dental assignments?

2. List the methods you use (will use) in assessing your residents' "entering" clinical behavior.

3. Describe the issues you resolved (have to resolve) in determining the length and format of your residents' clinical dental assignments.

4. What kind of faculty supervision do you (will you) give to your residents' clinical dental assignments?

On what basis will this supervisor evaluate the resident's work?

(continued on next page)

WORKSHEET NUMBER 8—Clinical Dental Assignments (continued)

5. What other clinical settings (if any) do (will) your residents use for gaining additional experience.

6. Do you agree with the ADA's *Guidelines* concerning the limited use of private practice facilities? ______

   Why do you say this? ______

66

Chapter 3—Hospital Training and Medical Assignments

Introduction

Hospital training and experience is an integral part of a general practice residency program. In our present health care system, the hospital is the major vehicle for delivery of comprehensive care. The most significant function of the hospital is to unite talents from various fields of health care to fulfill its basic obligation—providing health care to people. This basic function, together with availability of the human and physical resources, provides a rich environment for the cultivation of biologic interests and professional motivation, the prime requisites for successful teaching and learning.

Almost all the medical, dental, and other health related educational programs, particularly those at the advanced level, are based primarily in hospitals. Therefore, it is highly appropriate that a significant portion of this manual is devoted to the "hospital and medical" aspects of general practice residency training.

A general practice dental residency is a one- or two-year sequential hospital training program covering two or more areas of dental practice. *GPR Requirements: page 1, paragraph 2.*

Objectives

After reading this chapter and filling in the worksheet, the reader should have learned:

1. to identify those areas of hospital training and medical assignments that are required and important for general practice residency training; and
2. to list the general objectives, the length of assignments, the procedures, and teaching content for each of the hospital training and medical assignments.

[The objectives of in-hospital training and medical assignments are listed in general terms and not as specific "instructional objectives." In developing or improving assignments or didactic activities in this area, the director of the program may want to write more detailed objectives in behavioral terms. (See Section III Introduction, Areas of Instruction in General Practice Residency Programs.)]

Suitability and Preparedness of the Hospital

It is necessary that certain favorable conditions exist in hospitals which plan to develop dental general practice residency programs or in hospitals already conducting such programs. A receptive and cooperative climate among the administrative and the professional staff must be developed and maintained. Basic medical, surgical, and other support services are essential for development of a worthwhile training program. *Following are the basic elements in providing a suitable environment for a residency program.* (See also Section II, Chapter 1.)

1. Availability and cooperation of basic support services, e.g., anesthesiology, surgery, clinical laboratory, etc.

2. Philosophical and financial commitment of the administration and the governing body of the hospital.

3. Overall support of the medical staff, particularly the leadership of the staff.

4. Adequate size and facilities which would provide: (a) sufficient inpatient and ambulatory case load for the residents and (b) efficient conduct of the educational activities.

5. Accreditation by the Council on Hospital and Institutional Dental Services of the ADA as a requirement to be eligible for accreditation of the dental residency program.

Hospital Protocol

Dental residents must become familiar with basic hospital protocol to the same extent as physicians, especially those elements that are common to all hospitals in the United States. Since the subject matter is mainly administrative, it should be taught and monitored by the chief of the dental service. It is a requisite that the chief of the service be familiar with hospital protocol.

The resident should be familiar with the following aspects of hospital protocol: (1) administrative, professional structure and bylaws of the hospital;[1] (2)

regulating agencies and their impact on hospital functions; (3) Joint Commission standards for professional and patient care;[1] (4) financial structure of the hospital; (5) admission and discharge policies and procedures: role and responsibilities of the residents; and (6) patient records and problem-oriented record system: roles and responsibilities of the residents, including record review and record quality.

The hospital is home for many health professionals, especially the physician. The way a hospital runs is second nature to a physician but often foreign and frightening to the new dental resident. Only by spending time in the hospital and becoming familiar with hospital protocol will the resident truly feel and act like a member of the health team. Until this takes place, the resident will have to rely heavily on the dental attending staff for guidance.

The inhospital assignments described on the following pages of this chapter may be implemented somewhat differently in different institutions. The elements outlined below should be considered in developing each specific assignment.

> A reading list or a key reference bibliography should be given to the resident for each assignment, and the resident must be required to read those references *prior* to starting the assignment (e.g., basic text in anesthesiology). A reference acceptable to each respective department should be chosen.
>
> The assignments may not have to occur all in one hospital (e.g., the physical evaluation course could be obtained in another local hospital if suitable arrangements could be made).
>
> It should be made clear who will be the mentor for the residents in the departments to which they are assigned.
>
> When residents are assigned to services which also have emergency coverage, they should participate in the emergency activities of that rotation (e.g., pediatrics).
>
> Selection of each assignment should be based on the teaching strength of the particular service and the experiences of the residents in that service. Prompt feedback from the residents about each assignment should be obtained on prepared evaluation forms (see Section II, Chapter 6).
>
> Many of the assignments (e.g., radiology, pathology, pediatrics, physical diagnosis) can be on a half-day basis during the entire assignment period. This enables the resident to see dental patients during the assignments. Anesthesia assignment is usually an exception and the resident remains in that service for the entire day.

Emergency Department

Hospital emergency room experience is indispensible in a residency training. It affords a diversity and challenge in diagnosis and management of illness and interprofessional relationship. Dental residents must become fully-oriented and familiar with the emergency room. They must have regular assignments (rotation) to the emergency department throughout the year and receive specific instructions in various aspects of emergency services and care of emergency patients. Teaching and supervising residents in the emergency room must be well defined, and there must be continuous monitoring of the resident's performance and learning experiences throughout the training program. The residents should be exposed to the treatment of a wide range of emergencies so that they can be readily dealt with in a dental clinic or private office (e.g., cardiac arrest, acute pulpitis).

Residents should learn to function as part of the hospital emergency team through a formal assignment to the emergency room which can be made as a block assignment or scheduled throughout the residency. *GPR Guidelines: page 15, paragraph 1.*

The following specific orientation to the emergency department should be provided for the dental resident:

- Functions of the emergency department
- Role and responsibilities in the emergency department
- Interaction with other disciplines
- Policies and protocol for emergency care.

The following specific skills should be taught to each resident:

- Basic patient evaluation
- Emergency treatment of facial/oral pain
- Evaluation of the traumatized patient
- Diagnostic radiology relevant to common emergencies
- Management of infections
- Emergency drugs
- Cardiopulmonary resuscitation
- Management of medical emergencies.

If a dental department is new to your institution, it may take some time to orient the emergency room staff to the role which dentistry can and should play. Residents must understand the public relation role they play as dentistry's representatives. It will soon become clear that dentists know a great deal more about medicine than physicians know about dentistry. The dental resident needs the supervision and assistance of the attending staff during the emergency room experience. They should be available by phone or, if the situation demands, in person.

When residents are on call, they must remain in the hospital compound and be readily available. When less than three residents are in a program, the requirement for remaining on the premises may have to be modified.

In some institutions emergency department training is provided by block assignment. Adequate time must be given to assure a meaningful experience. The time varies according to the emergency patient load and variety.

Operating Room

It is important that the residents learn and become effective in the following during their program:

- Learn basic operating room and sterilization procedures
- Demonstrate and review operating room technique prior to assignment to operating room
- Learn techniques and facilities for dental treatment under general anesthesia
- Operate efficiently on patients under general anesthesia
- Perform comfortably in the operating room environment.

The operating room assignment may be a block assignment or on-going throughout the year.

Anesthesiology[2]

The resident should be assigned to the anesthesiology service of the hospital, work directly with qualified anesthesiologists, administer anesthetics, and monitor patients under supervision.

On completion of the anesthesiology assignment, the resident should: be acquainted with general anesthesia principles and techniques, understand the pharmacodynamics of anesthetic drugs, and have gained experience and confidence in the cardiopulmonary support and management of dental office emergencies.

The length of assignment to anesthesiology should be approximately one month, full-time. Taking emergency and evening anesthesiology calls with the anesthesiologists will further enhance exposure and learning. Longer assignment periods, whenever possible, are highly desirable.

The following should be provided for this assignment:

- Textbooks and references in the basic principles of anesthesiology that the resident should read prior to the clinical assignment
- Orientation outlining the objectives and the content of the assignment to the resident
- Assignment to specific anesthesiologists
- Participation in intravenous administration, intubations, selections of drugs, monitoring
- Administration of local, spinal, and regional anesthesia
- Rounds with anesthesiologists for pre- and post-operative evaluation
- Pain control in ambulatory and hospitalized patients
- Selection and administration of analgesics and sedatives and their pharmacodynamics during the anesthesiology assignment.

(The following information may also be provided in a separate didactic activity on pain control:

- Supervised practical experience in the anesthesiology and dental departments for psychosedation and pain control.)

Physical Evaluation[3]

Residents must learn the fundamentals of physical diagnosis and patient evaluation in the program and be able to communicate with their medical colleagues.

> *Physical Evaluation:* The resident should learn methods of physical diagnosis in order to recognize and evaluate the basic physiologic pathology of systemic disease and its influence on oral health. *GPR Requirements: page 2, paragraph 6.*
>
> As used in this document, physical evaluation refers to obtaining the medical history, performing a physical examination, and interpreting the laboratory tests necessary to obtain a sufficient data base to responsibly plan and carry out dental therapy. *GPR Guidelines: page 16, paragraph 3.*

A well-structured and supervised protocol for learning and experience in physical evaluation is necessary. Physical evaluation is an ongoing learning process which must be nurtured by the program. The hospital provides ample opportunity for continuing physical evaluation experience. Hospital policy to have physical evaluation by a physician for patients admitted to the dental service is not in conflict with the above statements.

The principle objectives of a didactic activity in physical evaluation include: to become competent in obtaining patient histories; to become competent in basic physical evaluation; to be able to assess the overall health status of the patient; and to assess medical risks, particularly as they relate to the management of the dental needs of the patient.

A formal physical evaluation course should include approximately six weeks of basic didactic and traditional bedside physical diagnosis training. It should be taught by a person experienced in teaching physical diagnosis. A specific outline, course content, and test assignments should be available to the residents. The course should be scheduled early in the program.

Pathology and Oral Medicine

Clinical and didactic training in pathology and oral medicine is very important in the training of a resident. These subjects should be provided on an ongoing as well as specific assignment basis.

The purposes of this assignment are to gain experience in the diagnosis and management of oral lesions and to become acquainted with basic pathology and diagnosis.

The following methods and assignments can be used in teaching pathology and oral medicine.

The etiology and management of oral lesions found in the patients should be discussed with the resident. Residents should be required to follow such patients regularly and discuss their findings with the attending clinician and pathologists. Biopsy procedures and other diagnostic methods should be taught early in the program. Seminars and lectures in oral pathology and oral medicine must be included in the didactic program. Clinical pathology conferences in oral pathology as well as systemic pathology should be included in the residents' training.

Rotation to the pathology service for a period of two to four weeks is highly desirable. During this assignment, under direct supervision of a qualified pathologist, residents should review the histopathology of oral lesions and become familiar with the overall functions of the pathology department.

Residents should be assigned to the oral pathology and oral medicine services in those institutions which have such specialty divisions.

Clinical Laboratories[4,5,6]

> *Clinical Laboratory Science:* The resident should understand the indications for laboratory examinations and tests and should be able to interpret and utilize laboratory data. *GPR Requirements: page 2, paragraph 7.*
>
> Residents should be able to interpret any laboratory studies and findings utilized in the diagnosis and management of diseases of patients hospitalized for dental treatment. *GPR Guidelines: page 17, paragraph 5.*

Clinical laboratory sciences have become highly sophisticated in recent years and are important in diagnosis and treatment of diseases. The residents' exposure to clinical laboratory sciences and compliance with the *GPR Requirements and Guidelines* must be assured in the program.

On completion of the residents' training, the residents should appreciate the significance of clinical laboratory procedures in diagnosis and treatment of diseases. The resident should also be familiar with certain basic laboratory techniques and be able to interpret laboratory data.

Laboratory data should be reviewed and discussed on an ongoing basis during case presentations, inpatient rounds, and seminars. Two or more weeks of formal assignments in clinical laboratories should be included, along with lectures and seminars on specific clinical laboratory subjects.

Internal Medicine, Pediatrics, Family Medicine

The resident must have an opportunity to become acquainted with medical practice and apply the knowledge learned in the physical diagnosis course. Assignment to one or more of these services (internal medicine, pediatrics, family medicine, primary care medicine) can provide this opportunity. Also, residents who have responsibility for providing comprehensive dental care for patients who are medically compromised may use physical diagnosis skills. Often more will be learned by making a direct contribution (i.e., providing care) while involved in medical subjects. With the current trend toward emphasizing Family and Primary Care, residents should also become involved and interact with this growing medical discipline.

On completion of their assignments to these services, residents should have a greater knowledge of internal medicine, pediatrics and family medicine specialties and learn to establish liaison with these disciplines. They should also be capable of integrating dental needs with total patient care. An assignment of four to six weeks to one or more of the above disciplines should include participation in medical and pediatric rounds, as well as sharing patients with the ambulatory family practice.

Radiology[7]

In addition to dental radiology, residents should become familiar with basic and certain special radiology techniques commonly used in modern diagnostic radiology. Such familiarity will enhance their learning in other medical and dental phases of the program.

Some of the special radiologic techniques pertinent to dental and head and neck regions are tomograms, computerized axial tomography, sialography, salivary gland, and bone scanning. Residents should be able to identify and evaluate abnormalities in those radiographs that are obtained routinely for screening and diagnostic reasons (e.g., chest films, skull, and facial bone films).

The assignment to the radiology department should be from two to four weeks. Residents should have the opportunity daily to examine and discuss radiographs and teaching files with radiologists. They should also have the opportunity to observe certain techniques (tomography, scanning) and attend lectures and seminars in diagnostic radiology.

Experience in radiology may also be provided on an ongoing basis throughout the year by reviewing and discussing radiologic findings with the attending dental and radiology staffs.

Inpatient Care

Residents must have training and responsibilities in all aspects of the care and management of dental inpatients. Full participation by the resident must be required, and the attending staff must fully exercise its teaching and supervisory responsibilities during the admission.

The following excerpt of the *GPR Guidelines* includes the objectives and protocol for inpatient experience.

> Residents should have the experience and training to enable them to function efficiently and comfortably within the hospital environment. Residents should be responsible for managing dental inpatients including (1) admission and discharge of patients; (2) obtaining medical histories and conducting appropriate physical examinations; (3) prescribing treatment and drugs; and (4) preparing the hospital chart including notation of pre- and post-operative orders, progress notes, description of surgical procedures and discharge summaries.
>
> Residents should be encouraged to treat a wide range of patients requiring dental care, including those who are highly apprehensive, medically compromised, have severe disabilities, or are hospitalized because of the nature of their dental care.
>
> In all training programs, each dental patient admitted to the hospital should have a complete history and appropriate physical examination performed by the dental resident. Individual hospital policy requiring evaluation by a physician should not preclude such practice.
>
> Residents should make rounds on dental inpatients at least once daily and teaching rounds should be scheduled with attending staff on a regular basis when there are dental inpatients. Dental inpatient charts should be evaluated regularly by the attending staff. Residents should participate in the seeking of consultations for their own patients and providing consultation to other services. Residents should actively participate in dental procedures performed in the operating room, including those performed under general anesthesia. *GPR Guidelines: page 14, paragraphs 3, 4, 5, 6.*

The procedures involving admitting a patient to the hospital, treating that patient in the operating room, writing care orders and, finally, discharging the patient provide the resident with important learning experiences. The following are a few examples of the many types of learning that the resident may experience as part of his care of inpatients:

1. decisions regarding whether to admit or not—morbidity and mortality, informed consent, consultation with medical colleagues, financial considerations;
2. process of admitting—hospital protocol, writing of orders;
3. operating room—organization of procedures to be done, realization of how it is monitored, responsibility for care of patient in general recovery room, writing of orders;
4. follow-up care—monitoring vital signs, orders, consultation, institutional consideration; and
5. discharge and ambulatory follow-up—decision regarding whether patient is ready to go home, orders, protocol.

Interdepartmental Consultations

Consultations in the hospital environment provide excellent opportunities for academic teaching and learning encounters for the resident. Residents must learn to respond appropriately to consultations requested by other departments as well as knowing how to seek consultation. Intra- and interdepartmental consultations must be used as a learning advantage for the residents.

Orientation and teaching protocol should discuss the following aspects of consultation: principles for seeking consultation, methods of obtaining consultation, hospital policies and ethics for consultation, proper response to consultation requests and the reporting of findings, and consideration of consultants recommendations and opinions.

Geriatric and Physically/Mentally Handicapped Patients[8]

Dental care and management of geriatric and handicapped patients add a great deal to a general dentistry residency program. The resident can gain experience in diagnosing and managing the dental and oral health care needs of these patients and should be able to assess intelligently the medical and anesthetic risks. An organized and supervised training component for the care of geriatric and handicapped patients can be developed within the residency training program.

The training program and residents' protocol should include the following aspects of care for geriatric and physically/mentally handicapped patients.

- Administrative and clinical organizations or agencies which render care to geriatric and handicapped patients
- Disciplines and approaches to diagnoses and dental treatment for geriatric and handicapped patients
- Clinical supervision and staffing
- Modified equipment accessability
- Dental technique modifications
- Anesthesia management
- Special preventive care measures
- Communication techniques
- Resident's assignment and overall responsibilities

Seminars on Medical Problems of Dental Significance

A series of well-structured seminars discussing medical problems of dental significance and dental problems of systemic significance should be offered the residents during their training. These seminars should enable the resident to appreciate the interrelationship between certain medical and dental illnesses and their specific management.

The following items should be considered in developing such a seminar series: (1) the seminars should be ongoing; (2) the format should include residents' input and participation; (3) a list of subject matters, such as diabetes, hemophilia, multiple sclerosis, should be developed; (4) both medical and dental staff members knowledgeable in the specific subjects should lead the seminars; and (5) specific reading assignments should be given to the residents.

REFERENCES

1. Joint Commission on Accreditation of Hospitals. *Accreditation Manual for Hospitals.* Chicago: Joint Commission on Accreditation of Hospitals, 1979.
2. Dripps, R.D., J.E. Eckenhoff, and L.D. VanDam. *Introduction to Anesthesia.* Philadelphia: W. B. Saunders Company, 1972.
3. Bates, B. *A Guide to Physical Examination.* New York: J. B. Lippincott Company, 1974.
4. Weed, R.K. *Hematology for Internists.* Boston: Little, Brown and Company, 1971.
5. Davidsohn, I. and J.B. Henry. *Todd-Sanford Clinical Diagnosis by Laboratory Methods.* 15th Edition. Philadelphia: W. B. Saunders Company, April 1974.
6. Collins, D.R. *Illustrated Manual of Laboratory Diagnosis.* Philadelphia: J. B. Lippincott Company, 1975.
7. Squire, L.F. *Fundamentals of Roentgenology.* Cambridge, Mass.: Harvard University Press, 1964.
8. Franks, A.S.T. and Bjorn Hedegard. *Geriatric Dentistry.* Oxford: Blackwell, 1973.

WORKSHEET NUMBER 9

Hospital/Medical

Directions: After studying this chapter, answer these questions. Your answers should help you determine the proper hospital training and medical assignments you should include in your general practice residency program.

1. Describe the orientation program for the emergency department your program provides (will provide) for your residents.

2. What are (will be) the objectives of your program's didactic activity in physical evaluation?

3. What arrangements exist (will exist) for helping your residents become familiar with the medical practice aspects of the hospital program?

4. How long is (will be) the anesthesiology department assignment? ____________________

   What special techniques does (will) the resident become familiar with? ____________________

5. How closely do (will) your residents' inpatient experiences follow the *GPR Guidelines*?

(continued on next page)

WORKSHEET NUMBER 9—Hospital/Medical (continued)

6. What do (will) you include in your resident's program for geriatric and physically/mentally handicapped patients?

7. What practical problems do (will) your residents experience in working with other hospital professionals?

How do (will) you help your residents deal with these problems? ______

Appendix A—Budget Development Model

OUTPATIENT DEPARTMENT
ACTIVITY AND FINANCIAL ANALYSIS

Department ____________________

Month ____________________

	Anticipated Monthly	Actual Monthly	Variance Monthly	Variance Year to Date
NUMBER OF VISITS/SERVICES				
Private Ambulatory				
OPD				
Other				
TOTAL				
Private Practice Room Hours				
FINANCIAL ANALYSIS				
Direct Expense				
Personnel				
All Other				
Subtotal				
House Staff				
Social Work				
TOTAL DIRECT EXPENSE				
Depreciation/Interest–Building				
Depreciation–Moveable Equipment				
Utilities				
Operation and Maintenance				
Housekeeping				
TOTAL ON-SITE EXPENSE				
Revenue				
Private Ambulatory Rent				
OPD Billings				
Other Revenue				
Miscellaneous Credits				
TOTAL REVENUE				
NET DEFICIT/CREDIT				

APPENDIX A—Budget Development Model (continued)

MEDICAL/DENTAL CENTER

BUDGET PROPOSAL

Calendar 19____

Account Number ____________________

Department ____________________

SUB-CODE	DESCRIPTION	BUDGET PROPOSAL January 1—December 30, 19____	REMARKS
SALARIES:			
100	PHYSICIANS/DENTISTS		
110	CLINICIAN II		
112	CLINICIAN I		
121	ADMIN.—NON-ACADEMIC		
122	PROFESSIONAL SPECIALISTS		
129	INTERNS AND RESIDENTS		
131	CLERICAL-SECRETARIAL		
132	TECHNICAL		
133	MANUAL SERVICES		
134	NURSING—RN		
136	NURSING—LPN		
160	STUDENTS		
169	FELLOWS		
181	CLERICAL-SECRETARIAL		
182	TECHNICAL		
183	MANUAL SERVICES		
184	NURSING—RN		
186	NURSING—LPN		
SUBTOTAL SALARIES:			
190	BENEFITS		
SUBTOTAL SALARIES AND BENEFITS:			

76

Account Number ____________________

Department ____________________

SUB-CODE	DESCRIPTION	BUDGET PROPOSAL January 1—December 30, 19____	REMARKS
OTHER EXPENSES:			
201	TRAVEL-TRANSPORTATION—CONFERENCE		
202	RECRUITING		
203	MOVING		
205	SPECIAL TRAINING		
206	FREIGHT AND TRUCKING		
210	OFFICE SUPPLIES		
211	PRINTING—OUTSIDE		
212	PRINTING—		
213	OFFICE SUPPLIES—GENERAL STORES		
214	INST. SUPPLIES (BOOKS)		
215	MAINTENANCE SUPPLIES		
216	UNIFORMS		
230	MISC. AND PETTY CASH		
231	PROF. AND CONTR. SERVICES		
232	TEMPORARY HELP		
233	XEROX AND OTHER DUPLICATING		
234	MICROFILMING		
235	EQUIPMENT MAINTENANCE CONTRACTS		
236	INTEREST CHARGES		
237	INSURANCE		
238	DUES AND MEMBERSHIPS		
239	LICENSES AND PERMITS		

77

APPENDIX A—Budget Development Model (continued)

Account Number ______________________

Department ______________________

SUB-CODE	DESCRIPTION	BUDGET PROPOSAL January 1—December 30, 19___	REMARKS
OTHER EXPENSES (continued):			
241	EQUIPMENT RENTAL AND LEASING		
242	BUILDING RENTAL AND LEASING		
261	EQUIPMENT—MINOR		
290	ALL OTHER		
301	TELEPHONE AND TELEGRAPH		
302	COMPUTER CENTER		
303	COMPUTER CENTER		
304	MAINTENANCE AND REPAIRS—ROUTINE		
305	ENGINEERING WORK ORDERS		
306	UTILITIES		
307	ENGINEERING PURCHASED SERVICES		
308	GROUNDS MAINTENANCE		
309	VIVARIUM		
500	MEDICAL SUPPLIES (GENERAL)		
501	PHARMACY		
502	INSTRUMENTS		
503	SUTURES		
504	IV SOLUTIONS		
505	LINENS		
506	LINENS—DISPOSABLE		
507	DISPOSABLES—OTHER		
508	FROZEN BLOOD—RED CROSS		

APPENDIX A—Budget Development Model (continued)

Account Number ____________________

Department ____________________

SUB-CODE	DESCRIPTION	BUDGET PROPOSAL January 1—December 30, 19___	REMARKS
OTHER EXPENSES (continued):			
509	RESPIRATORY THERAPY		
510	PURCHASE FOR RESALE		
630	REQ.—MISC.		
631	REQ.—DIETARY		
632	REQ.—LAUNDRY		
633	REQ.—SEWING ROOM		
634	REQ.—STERILE SUPPLY		
635	REQ.—ORTHOPAEDIC SHOP		
637	REQ.—HOSPITAL STORES		
SUBTOTAL OTHER EXPENSES:			

APPENDIX A—Budget Development Model (continued)

Account Number ____________________

Department ____________________

SUB-CODE	DESCRIPTION	BUDGET PROPOSAL January 1—December 30, 19___	REMARKS
PRORATES:			
800	PRORATES—OUTSIDE		
801	PRORATES—INTERNAL		
SUBTOTAL PRORATES:			
EXPENSE CREDITS:			
900	CREDITS—CASH		
901	CREDITS—MEDICAL SCHOOL		
902	CREDITS—DENTAL SCHOOL		
904	CREDITS—RENT		
905	CREDITS—OTHER		
906	CREDITS—ALLIED HEALTH		
907	CREDITS—DENTAL HYGIENE		
908	CREDITS—DENTAL ASSISTING		
SUBTOTAL EXPENSE CREDITS:			
TOTAL EXPENSES:			

Appendix B—Description of a Service-Oriented Ambulatory Care Model, May 1978

I. Organizational Management

A. The Medical Center sets broad policies of organization and operation of ambulatory services.

B. The Hospital enters into a formal agreement with a clinical department to rent space for ambulatory patient care, education and research.

1. The clinical department may then sub-rent to full- and/or part-time faculty or other uses consistent with this agreement.

C. The clinical department establishes an area budget, retains the necessary personnel, and provides, supervises, and evaluates care.

D. All employees remain University employees; however, the clinical department has primary authority and responsibility for personnel matters within its ambulatory program.

II. Patient Care

A. The clinical department will be primarily responsible for all patients seen by staff on that service.

B. The clinical department determines which patients shall be seen by whom and where.

C. The Hospital and the clinical departments will work toward an integrated medical record; however, the medical record may be a Hospital record or a record of the department.

III. Financing

A. The clinical department reimburses the Hospital for certain costs, as negotiated, on an annual basis. This amount is intended to cover such costs as building depreciation, utilities, plant operations, security, housekeeping, etc.

B. Income from direct patient care will be pooled and credited to the clinical department. Ancillary service income will not be included in this pool.

C. Costs which may not be covered by the negotiated reimbursement will be the responsibility of the Medical Center.

D. The clinical department will pay staff salaries and benefits, plus all other direct operating expenses of the area.

E. The Hospital and the clinical departments will investigate a coordinated billing method.

IV. Education

A. Programs devoted to resident and fellow education will continue to be the responsibility of the clinical department.

B. The Medical Center and the clinical department will negotiate the amount and source of residency and student support for the ambulatory areas. It is felt that both medical and nursing students decrease the productivity of ambulatory programs and that some extramural support may be necessary to offset this impact.

V. Physical Facility

A. Floors or portions of floors in the ambulatory wing of the Hospital will be available for rent by clinical department.

B. Space not contracted for will be used by the Hospital for other suitable purposes.

C. Renovations or other substantial changes to the facility must be approved by the Hospital prior to the change.

D. The funding for such substantial changes must be negotiated between the Hospital and the clinical department.

Appendix C—Income and Cost Analysis

Establishment of program objectives should be followed by a projection of potential sources of income and an analysis of costs. An example of a study generating this information carried out by a hospital contemplating a General Practice Residency program in dentistry is shown here. All third parties presently reimbursing the hospital for services were analyzed for policies of reimbursement for dental care. Direct expenses are projected on the basis of information available from other programs and departments within the hospital. Indirect expenses are projected in a similar manner. The experience of a neighboring institution with a General Practice Residency program is used extensively to project patient revenue, taking into consideration those differences between the two institutions in salient populations which will affect revenue. These figures are then broken down to a per visit charge for self-paying patients necessary to meet costs. While the values are variable by locality, this method can supply much of the information necessary to a preliminary financial evaluation.

Third-Party Mechanisms for Reimbursing Dental Fees to the Proposed Dental Clinic in Medical/Dental Center

Medicaid
Medicaid will pay customary and reasonable charges up to the program's maximum fee schedule.

Aid to Families with Dependent Children
Same as Medicaid

County Welfare
The County Welfare program should operate in the same manner as the State program (Medicaid). Regrettably payment is slow and financial constraints are limiting clinic visits to two per month per patient.

Psychiatric Health Center
Payment is on basis of customary and reasonable charges.

Medicare
Medicare does not reimburse for outpatient dental care. It does pay for specific oral surgical procedures.

Central Hospital Bureau
Covers dental care up to 18 years of age. Pays on the basis of cost. In the fourth quarter of 1977, Central Hospital Bureau paid 73 percent of Medical/Dental Center charges.

County Children's Service Bureau
Payment is on the basis of the hospital's State Medicaid report. Pays 89 percent of Medical/Dental Center charges.

Soldier's Relief Commission

Juvenile Court

City Jail

Youth Commission

All above pay charges.

MEDICAL/DENTAL CENTER

Ambulatory Care Clinic Visits in August and September 1977 by Payment Mechanism

	August 1977		September 1977	
	Number	%	Number	%
County Welfare	121	9.9	121	10.8
Aid to Dependent Children	461	37.7	333	29.7
Medicaid	365	29.9	372	33.2
Private Patients	124	10.1	128	11.4
Central Hospital Bureau	25	2.0	23	2.0
Medicare	45	3.7	66	5.9
Special Training Program	15	1.2	10	4.6
Psychiatric Health Clinic	50	4.0	42	
County Children's Service Bureau	3	1.5	8	2.4
Juvenile Court			2	
City Jail	4		5	
Youth Commission	3		3	
Health Center	2		–	
Soldier's Relief Commission	6		8	
Totals:	1,224	100.0	1,121	100.0

Projected Schedule of Direct Expenses

Item	Explanation*	Quantity	Amount	Total
Dental Residents	1	2	$12,000	$[illegible]00
Dental Assistants	2	2	7,300	[illegible]4,600
Secretary/Receptionist	3	1	7,300	7,300
Medical and Surgical Supplies	4			1,747
Drugs and Chemicals	4			292
Disposable Instruments	4			140
Dressings	4			91
Sutures	4			523
Disposable Towels	4			156
Laboratory Supplies and Services	4			16,302
Disposable Dietary Supplies	4			68
Cleaning Supplies	4			20
Linens	4			493
Other Paper Supplies	4			47
Office Supplies				585
Plant Operations	5			3,320
Telephone				–
Depreciation	6			10,000
Total:				$79,684

***Explanation**

1. Dental residents to be awarded a stipend of the same amount and on the same basis as medical residents.
2. Dental assistants to provide chairside assistance for interns.
3. Secretary/receptionist also responsible for maintenance of records.
4. Expense data as for the general dental program at neighboring hospital.
5. Plant operations based on 1977 heat light, power cost of $1.66 per square foot, and a clinic area of 2,000 square feet.
6. Depreciation of $70,000 worth of equipment over seven years.

Projected Schedule of Indirect (Allocated) Expenses

Item	Amount
Administration	$10,346
Management Services	529
Data Processing	2,791
Maintenance	2,586
Housekeeping	2,118
Laundry	717
Cafeteria	472
Social Services	7,628
Collections	783
A/G Phantom	1,702
Total	$29,672

This Forecast of Indirect Expenses is computed by considering the same items of overhead as apply to the current ambulatory care program and prorating them to direct expenses in the same proportion as they are in the ambulatory care program. Exceptions are that plant operation, interns, and residents are considered as direct expenses.

The Medical/Dental Center, on the experience of its ambulatory care program, should anticipate a different profile in terms of patient mix by method of payment from neighboring hospitals. There are *many* more Medicaid patients visiting Medical/Denter Center's Ambulatory Care Clinic than visit neighboring dental clinics. In terms of welfare program enrollees, that is, those who are funded by state, county, or other programs, Medical/Dental Center's clinic has a high percentage, made up as follows:

Medicaid	29.9%
Aid to Dependent Children	37.7%
County Welfare	9.9%
Central Hospital Bureau	2.0%
Total	79.5%*

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*Figures based on a survey of 1,224 clinic visits made to ambulatory care clinic in August 1977.

Other clinic cases funded on a third-party basis include:

Special Training Program	1.2%
Psychiatric Health Center	4.0%
Other	1.5%
Total	6.7%
Total Funded Patients	86.2%

Patient Revenue

The majority of the patients who would receive care in the proposed clinic would be enrollees of one or more welfare programs. The manner in which these welfare programs fund dental care differs markedly from the manner in which medical care is funded. The most financially beneficial welfare patient in a hospital dental program is on Medicaid. At neighboring hospitals the other significant patient group is the self-paying medically nneedy but nonindigent. At neighboring hospitals, the August and September 1977 revenue account was as follows.

	August 1977		September 1977	
	Amount	%	Amount	%
Blue Cross	$ 1,159.00	7.4	$ 1,269.00	9.3
Private Insurance	628.00	4.0	821.00	6.0
Medicare	643.00	4.1	283.00	2.0
Medicaid	6,143.00	39.5	4,877.00	35.8
Self-paying	6,435.00	41.3	5,399.00	39.7
City Welfare	238.00	1.6	173.00	1.3
Unspecified Welfare	271.00	1.8	543.00	4.0
Industrial	47.00	.3	101.00	.8
Day Nursery	–	–	143.00	1.0
Totals:	$15,565.00	100.0	$13,609.00	100.0

Patients seen per day per resident = 16
Daily total (x 2) = 32
Per week (x 5) = 160
Per year (x 50) = 8,000

Direct Cost	$ 79,684
Indirect Cost	29,672
	$109,356

If 86 percent of all patients are treated on a cost reimbursement formula, then $94,046 can be reimbursed and $15,310 must be recovered from charges.

If 8,000 visits are made annually, 14 percent or 1,120 would notbe covered under cost reimbursement.

To break even, each of these visits would need to be charged an average of $13.67 per visit.

86

Appendix D—Example of Resident Manual

TABLE OF CONTENTS

PART I—GENERAL DENTISTRY PROGRAM
A. Introduction
B. Assignment to the General Clinic
C. Radiology
D. Rotational Assignments and Required Programs
E. Emergency and Special Services
F. Surgery Rotation
G. Endodontics
H. Prosthodontics and General Practice Residency Laboratory
I. Periodontics
J. Pain Control
K. Orthodontics
L. Didactic Requirements
M. Dental Care for Adult Handicapped Patients
N. General Practice Residency Presentation Seminars
O. Case Presentation and Treatment Planning
P. Completed Case Seminar Presentation
Q. Additional Elective Assignments, Courses and Clinics
    1. Endodontics
    2. Prosthodontics
    3. Implant Dentistry
    4. Periodontics
    5. Pedodontics
    6. Research
    7. Communications
    8. Social Issues in Dentistry
    9. Practice Management
    10. Slide Presentation Course
R. Evaluation
S. Requirements for Certification

PART II—CLINIC PROCEDURES
A. Attendance
B. Absences and Holidays
C. Clinic Jackets
D. Equipment and Facilities
E. Staff Dental Assistants
F. After Hours Treatment
G. Conflict Schedules
H. Hygiene Student Program
I. Patient Flow and Waiting List Organization
J. Assignment of Patients to a Resident
K. First Regularly Scheduled Comprehensive Care Appointment
L. Charting of Clinical Examination
M. Evaluation of Patient Motivation
N. Treatment Planning
O. Treatment Narrative Record
P. Scheduling of Patient Appointments
Q. Patient Records
R. Procedures for Patients' Financial Arrangements
S. Medicaid Procedures
T. Insurance Patients

PART III—ADDITIONAL PROGRAM INFORMATION
General Dentistry Teaching Staff
Clinic Staffing
Clinical and Research Students
Resident Committee
Academic Year Calendar

PART IV—CLINICAL PROCEDURES MANUAL

APPENDIX

87

Appendix E—Examples of Didactic Activities

> . . . seminars, demonstrations or lectures should relate to the following areas:
> a. applications of current concepts of patient care;
> b. individual topics, techniques or procedures;
> c. reviews of the literature on relevant subjects;
> d. psychological and social needs of patients as they affect care; and
> e. pertinent aspects of oral pathology and radiology.
>
> *GPR Guidelines: page 18, paragraph 3.*

Example I: Fixed Prosthodontics

Two types of didactic activity will be presented. The first is a discussion series that utilizes selected clinical articles to lead the resident through all the steps of a procedure in fixed prosthodontics. Also included is an example of one of the sessions which is a working outline to help the coleaders structure time and content.

Clinical Fixed Prosthodontics

Description:	This course will combine brief lectures and directed discussion on clinical techniques and problems in fixed prosthodontics.
Objectives:	a. To identify the critical steps for the various commonly used clinical techniques in fixed prosthodontics b. To understand these procedures based on selected dental articles and the background of the residents c. To share the clinical and didactic experience among residents and faculty regarding these procedures d. To compare the clinical merits of the various techniques
Time and Dates of Course:	Monday 9:00-10:30 a.m.
Seminar Format:	Each resident will be given a series of articles to read for each meeting. After brief opening comments by the course leaders, the participants will be encouraged to discuss their major concerns regarding each topic.

Course Outline and Schedule

Session I. Diagnosis and treatment planning
Rationale of tooth replacement
II. Techniques used in removal of tooth structure
III. Temporary bridge construction
IV. Impression techniques
V. Orientation of casts and dies
VI. Try in and adjustments
Insertion and postinsertion problems

Session Outline and Time Schedule

Session III. Temporary Bridge Construction

Required Reading:

A. Langeland, K. and L.K. Langeland. Pulp Reactions to Crown Preparations, Impressions, Temporary Crown Fixation and Permanent Cementation. *J. Prosth. Dent.*, 15:129-143, 1965.

B. Dahl, B.L. and J. Orstvik. Cytotoxicity of Temporary Crown and Bridge Materials. *J. Oral Rehab.*, 3:341-347, 1976.

Time	*Outline*	*Discussion Leader*
8:00-9:20 a.m.	Outline of techniques (the leader will attempt to develop this outline on the blackboard with the active participation of the group).	Black

A. Direct Fabrication

1. Type of mold
   a. Wax
   b. Vacuum fired
   c. Alginate
   d. Preformed materials
   e. Free form
2. Type of temporary materials
3. Methods of fabrication
   a. Bulk
   b. Shell
   c. Reline
   d. Gold plated copper band margins

B. Indirect Fabrication

1. Heat cured shell
2. Autopolymerizing shell
3. Margin adaptation using a metal die

Fixed Prosthodontic Literature Review Seminar

Description: This seminar series will selectively review past and current literature in the field of fixed prosthodontics. Primary emphasis will be placed on critical analysis of original scientific research.

Objectives:

a. To become familiar with the sources of scientific literature relating to fixed prosthodontics

b. To develop the skill necessary to analyze this literature critically

c. To learn to organize the available information into useful form

d. To gain experience in communicating this information to a seminar group

e. To reach meaningful clinical conclusions based on existing scientific knowledge

Times and Dates of Seminar:

a. First semester (beginning November)

b. Wednesdays

c. 1:30-3:00 p.m.

Seminar Format: With guidance by the course leaders, seminar topics will be researched, prepared, and presented by the responsible resident or member of the attending staff. Seminar outlines and bibliographies must be prepared two weeks prior to the appointed date. Key articles for each topic will be distributed to each participant. It is the responsibility of each resident to read these articles in order to contribute to the discussion in a meaningful fashion.

The discussant should limit his presentation to 45 minutes. The remaining 45 minutes will be used for open discussion.

Content:

The following are the specific topics for each seminar. Following each topic is a brief outline of the material to be included.

A. Impression Materials (Elastic)
   1. Silicones, mercaptan, polyethers
   2. Accuracy, stability
   3. Elastic recovery, permanent deformation
   4. Setting times
   5. Tray selection
   6. Handling characteristics

B. Impression Materials (hydrocolloids and compound)
   1. Physical properties
   2. Syneresis and imbibition
   3. Effects on surface of stone
   4. Special handling of reversible hydrocolloid
   5. Material composition

C. Dies and Die Systems
   1. Selection of die materials
   2. Desirable qualities of die materials
   3. Accuracy of die systems
   4. Stone, epoxy, and electroformed dies

D. Cements and Cementation
   1. Physical and chemical properties
   2. Pulpal reactions
   3. Temporary, intermediary, and permanent cements
   4. Retention
   5. Venting

E. Casting Alloys
   1. Significant physical and chemical properties
      a. modulus of elasticity
      b. Brinnel or Vickers hardness
      c. tensile strength
      d. percent elongation
      e. yield strength
      f. porcelain bond
   2. Type III alloys
   3. Porcelain alloys
   4. Nonprecious alloys

F. Veneer Materials
   1. Physical properties
      a. acrylic
      b. gold
      c. porcelain
   2. Prosthetic design
   3. Indications and contra-indications of each material

G. Articulators and Articulation for Fixed Prosthodontics
   1. Comparison of articulators
      a. simple
      b. semi-adjustable
      c. fully adjustable
   2. Indications for each type of instrument
   3. Comparison of occlusal schemes with the use of each instrumen

H. Abutment Design for Fixed Prosthodontics
   1. Retention form
   2. Pin systems
   3. Post systems
   4. Material used for core materials

I. Margins of Restorations and Periodontal Health
   1. Margin placement
   2. Gingival reaction to restorative materials
   3. Indications for supra- and subgingival margins
   4. Marginal fit of cast restorations

J. Design of Fixed Prosthesis in Relation to Periodontium
   1. Crown contours
   2. Pontic design
   3. Embrasure design
   4. Splinting
   5. Contraindications for multiple joint connections

K. Soft Tissue Management During Restorative Procedures
   1. Gingival retraction
      a. cord
      b. electrosurgery
      c. combination
   2. Temporization
   3. Periodontal procedures

Example II: Case Presentation and Treatment Planning

> **Monthly patient care conferences should be designed for discussion of case presentations and diagnostic problems, preparation of treatment planning, and review and follow-up of selected cases. *GPR Guidelines: page 18, paragraph 2.***

Description:

Formal oral case reports will be presented by each resident at seminar session. The resident is required to have a written presentation and necessary diagnostic material to supplement the presentation.

Objectives:

a. To organize and present a case report for a patient in need of comprehensive care

b. To give the resident experience in speaking before a group

Procedure:

Cases will be presented once a month. There will be two presentations of 45 minutes duration for each session. Each resident should allow approximately 15 minutes for questions and answers. The meeting will be held in the departmental seminar room.

Criteria for Selection of Case Reports:

a. Patients requiring treatment involving a number of clinical disciplines

b. Patients with medical problems requiring special techniques or unusual approaches to treatment

c. A unique pathologic entity

d. Unusual clinical approaches to routine clinical problems

Oral Case Report Content:

The presentation should include a comprehensive diagnostic evaluation and alternative treatment plans. It is preferable that treatment, other than emergency or other obvious palliative care, be postponed until after the presentation in the event that a proposed plan is altered. A written presentation is *required* for ease of comprehension by those attending the session and should be distributed to fellow residents the week previous to the presentation.

The outline below should be used in preparing the report.

A. Name, age, and sex of the patient

B. Chief complaint

C. Medical and dental history (where indicated, a brief review of salient points of medical and/or dental problems should be included)

D. Pertinent social background including assessment of patient motivation

E. Comprehensive description of the oral examination including periodontal and caries status

F. Roentgenographic analysis should include one or more of the following: complete series of 14 periapical films with bite-wings, lateral jaw, occlusal films, TMJ, panograph, or other special radiographs

G. Diagnostic casts (where partial dentures exist, impressions with and without the appliances in position should be taken)

H. Dental specialty and medical consultation when indicated

I. Photographs or slides (full face, profile, and smile line, when indicated, should be included as well as appropriate intra-oral close-ups)

J. Other diagnostic records such as diet analysis, bacteriologic tests, etc.

K. Dental diagnosis

L. Preferred and alternate treatment plans—these are to be listed in preferential order with accompanying reasons supporting the decisions

(Outlines of previous typical case presentation reports should be distributed to aid the resident in preparation.)

Example III: Social and Behavioral Sciences

> **It is suggested that seminars, demonstrations or lectures relate to the following areas:**
>
> .....
>
> **d. psychological and social needs of patients as they affect care;**
>
> .....
>
> ***GPR Guidelines: page 18, paragraph 3.***

Description:

The social and behavioral sciences actually represent the "glue" which holds the program together. Clearly, both undergraduate and postgraduate dental education place heavy emphasis on biological and technical issues and tasks, but these activities should be thought of as occurring within a social context.

Objectives:

a. To understand and be able to deal empathetically with the social forces in the community which impact upon the dental profession

b. To understand and be able to contribute productively to the advancement of the dental profession in our society

Procedure:

A series of 1½-2 hour seminars dealing with various subjects can be operated throughout the residency year. Residents would be obligated to read appropriate articles from the periodical literature. Such a seminar series, entitled "Social Issues in Dentistry," has been conducted quite successfully for the past five years in one residency program.

(Space does not allow inclusion in this manual of the bibliography on the topics, but a copy of the bibliography can be obtained by writing to the project director of this manual.)

(A word of caution regarding the appropriateness of various teaching methods. The content of this section deals mostly with feelings rather than facts. Because of this the lecture approach is rarely, if ever, appropriate. Of course, most residency programs will not be large enough that a formal lecture would be practical. Even so, the program director must always avoid an authoritarian, "one way" approach to the subject. With much of the content of this section the important consideration is not what the teacher *thinks*, but rather what the student *feels*. Therefore, group discussion, seminar, and role playing approaches are most appropriate.)

Content:

In achieving the first objective above, the following subjects are appropriate for seminar topics:

a. Social and economic barriers to the receipt of dental care

b. Social etiology of disease

c. Health legislation

d. Community health and social agencies and resources

e. Methods of payment for dental care

The second objective above can be dealt with effectively by seminars on these topics: (1) dental licensure and manpower problems, (2) dental ethics, (3) dental societies and organizations and their roles, and (4) quality control in dentistry.

The subject of "quality control" can best be dealt with by setting up a formal quality control structure within the residency program. This would, of course, be in addition to the regular monitoring of quality by the teaching staff. It should follow the principle of evaluation by peers and should relate to all aspects of patient care, including diagnosis, treatment planning, record keeping, patient relations, and the actual technical quality of the services rendered. The benefits of this approach are two-fold: the patient will receive better quality care, and the resident will become comfortable with the notion of being held accountable for his actions by his peers.

Example IV: Methods and Evaluation of Dental Research

Description:

This series will include background lectures on pulp studies, clinical caries trials, drug trials, periodontal indices, and utilization of laboratory animals prior to evaluation of specific scientific articles by the group. Some knowledge in statistics and experimental design is very desirable.

Course Objectives:

a. To become familiar with established methods, indices, and experimental designs used in dental research

b. To identify criteria that can be used to evaluate scientific articles in the dental literature

c. To evaluate specific scientific articles in the dental literature based on the above criteria

Procedure:

This series will be held from 8:00-9:30 a.m. every other Wednesday in the departmental seminar room.

The five background lectures will be presented by individuals with expertise in the subject. Residents will be responsible for reading assigned articles for each subject to provide background prior to the lecture, facilitate questions directed to the lecturer, and to encourage group discussion. Following these lectures there will be one seminar on the use of a scoring matrix for scientific articles.

The final four sessions will use the scoring matrix as the basis for evaluation of specific articles. Each resident will read and score the article prior to the session and return the scoring matrix for each article to the departmental secretary at least two days before the session. The scores for each article will be tabulated and serve as the basis for discussion as to reasons for giving high or low scores for each criteria.

A list of possible topics to evaluate specific articles are listed for the consideration of the group. Additional topics of interest to the residents should be submitted to the course leader. The topics for these sessions and the articles to be read and scored will be given to participants after the final selection is made.

Content:

Below are titles for each topic and pertinent required reading.

1. Drug Trials
   - A. Prineas, R.J. Common Problems in Clinical Trials. *Med. J. of Aust.*, 2:425-436, 1971.
   - B. Lionel, N.D. and A. Herxheimer. Assessing Report of Therapeutic Trials. *Brit. Med. J.*, 3:637-640, 1970.
   - C. Chilton, N. *Experimental Design, Design and Analysis in Dental and Oral Research.* Philadelphia: J. B. Lippincott Company, 1967.
2. Periodontal Indices
   - A. Ramfjord, S.P. Indices for Prevalence and Incidence of Periodontal Disease. *J. Periodontol.*, 30:51-59, 1959.

   B. Löe, H. and J. Silness. Periodontal Disease in Pregnancy. *Acta Odont. Scand.*, 21:533-552, 1963.

   C. O'Leary, T. The Periodontal Screening Examination. *J. Periodontol.*, 38:617-624, 1967.

   D. Massler, M. The P-M-A Index for the Assessment of Gingivitis. *J. Periodontol.*, 38:592-601, 1967.

3. Utilization of Laboratory Animals in Research

   A. Navia, J., ed. *Animal Models in Dental Research.* Birmingham: University of Alabama School of Dentistry, 1977.

   B. Johansen, E. *Use of Experimental Animals in the Screening of Anticaries Agents. Proceedings of Conference on Clinical Testing of Cariostatic Agents.* Chicago: American Dental Association, 1972.

4. Clinical Caries Trial

   A. American Dental Association. *Principles for the Clinical Testing of Cariostatic Agents—Summary of Conference.* Chicago: American Dental Association, 1972.

5. Pulp Studies

   A. Stanley, H.R. Design for a Human Pulp Study, Part I. *Oral Surg.*, 25:633-647, April 1968. Part II. *Oral Surg.*, 25:756-764, May 1968.

   B. Seltzer, S., I.H. Bender, and M. Zionitz. The Dynamics of Pulp Inflammation: Correlations between Diagnostic Data and Actual Histologic Findings in the Pulp, Part I. *Oral Surg.*, 16:846-871, July 1963. Part II. *Oral Surg.*, 16:969-977, August 1963.

   C. Diamond, R.D., H.R. Stanley, and H. Swerdlow. Reparative Dentin Formations Resulting from Cavity Preparation. *J. Prosth. Dent.*, 16:1127-1134, November/December 1966.

6. Scoring Matrix for Scientific Articles

   A. Kaslick, R.S., A. Van Stewart, and A.I. Chasens. A Method for Teaching Evaluation of Scientific Articles in the Dental Literature. *J. Dent. Educ.*, 36:48-52, 1972.

7-10. Evaluation of Scientific Articles

   A. Sealant studies

   B. Topical fluorides

   C. Motor driven toothbrushes

   D. Silver points and gutta-percha

   E. Pulp capping